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A Typology of competitive Actions

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A Typology of Competitive Actions

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ABSTRACT

In this dissertation I posit that prior research on competitive dynamics – while having contributed significantly to enhancing understanding concerning competitive interaction of companies – lacks both a theoretically rigorously derived definition for competitive action and an equally rigorously theoretically derived typology of such actions. Hence, I intend to contribute to this literature by proposing a rigorously derived definition for competitive action and by developing a typology which addresses, theoretically, the variety (i.e. the ontology) of different competitive actions.

In both conceptual and typological development the central underlying theoretical premise is the philosophical theory of action, a body of knowledge which has, to my best knowledge, not previously been applied in the context of competitive dynamics. With regard to conceptual development, this theoretical perspective addresses the notion of intentionality: because competitive action is generally perceived as intentional (goal-directed, purposeful) action, this perspective allows the concept of competitive action to be elaborated by studying in depth what the notion of intention implies in a competitive setting. In typological development, in turn, the philosophical theory of action provides one of the two typological dimensions by enumerating different elementary actions which apply not only to competitive action but instead to all human action. This typological dimension is supplemented by the general theory of competition which, in turn, enumerates different domains of action in competitive interaction.

The results of this dissertation consist of a theoretically rigorously derived definition for competitive action and a 64-item typology of theoretically possible competitive actions. As the typological development is in a central role in this dissertation, I demonstrate its validity in two ways. First, I compare the proposed typology against all prior typologies of competitive actions reviewed in this dissertation and find it to cover the variety of competitive actions substantially more broadly than any other prior typology. Moreover, I demonstrate that a central notion in the proposed typology, that of forbearing (to act) is not present in any of the prior typologies. And second, as the proposed typology is intended to be useful in subsequent empirical research in competitive dynamics, I illustrate, evaluate and discuss its applicability in an empirical research setting and generally find it to be applicable, with certain reservations, which mainly stem from the typological approach itself.

In addition to the direct conceptual and typological contributions to the literature on competitive dynamics this study also opens and discusses various avenues for new research, most of which concern comparing the current classificatory approach with alternative approaches, including taxonomic development.

Keywords: Competitive dynamics, competitive action, theory of action, theory of competition, philosophy, competition, typology, classification.

FOREWORD

Writing this dissertation has taken up the past four years, during which time I have worked on it with various intensities. But nonetheless, it has occupied a rather a central role in my thinking – both conscious and unconscious. During the entire time of developing the manuscript I have had the privilege, perhaps a rare one, of enjoying considerable freedom in terms of how to proceed. This has meant that some of these various intellectual endeavours have not translated into direct contributions to this dissertation. However, in retrospect I feel that I have learned from those sidetracks – be it concept formation in developmental psychology or classification of plants and animals in biology – at least as much as from the substantive bodies of knowledge this study is concerned with, namely competitive dynamics, the philosophical theory of action and the theory of competition. Thus, writing this dissertation has been for me a wonderful learning experience. Not only do I know more about certain trains of thought and academic work in general but in addition I believe that I know myself better.

This dissertation has benefited greatly from the help of several people. First and foremost, my sincerest thanks belong rightfully to Professor Juha-Antti Lamberg, who has helped me throughout the entire writing process, from the beginning to the very end, more than any other one person. I am truly indebted to Juha-Antti for his most professional and unselfish help, especially during the finalizing part of the manuscript. I believe that a doctoral student could not have a better mentor than him.

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Tampere, 14.1.2008

Tomi Nokelainen

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1 INTRODUCTION

This study is concerned with competitive dynamics, a stream of literature within strategic management which conceptualizes competition as an exchange of actions and the responses of rivalrous companies (Chen, Smith and Grimm, 1992; Ferrier, Fhionnlaoich, Smith and Grimm, 2002; Ferrier, Smith and Grimm, 1999; Grimm, Lee and Smith, 2006; Smith, Grimm and Gannon, 1992; Young, Smith and Grimm, 1996).

Competitive dynamics has a relative short history within strategic management, going back only some two decades (see, e.g. Chen and MacMillan, 1992; Chen et al., 1992; MacMillan, McCaffery and Van Wijk, 1985; Oliva, Day and MacMillan, 1988; Smith and Grimm, 1991; Smith et al., 1992; Smith, Grimm, Gannon and Chen, 1991), but the theoretical foundation of competitive dynamics, the Austrian school of economics (see Jacobson, 1992 for a review), has been established for considerably longer. According to this tradition, the market (considering one industry, for instance) is rarely, if ever, in a state of equilibrium (Schumpeter, 1934: 62, 1950: 82) because companies (usually 'entrepreneurs' in Austrian discourse) engage in a "perennial gale of creative destruction" (Schumpeter, 1950: 84). The process of 'creative destruction', in turn, translates into competitive rivalry in which companies constantly launch new competitive initiatives in the form of new competitive actions in order to enhance (or maintain) their competitive position and, hence, performance *vis-à-vis* their competitors (Ferrier et al., 1999). And what keeps the process of creative destruction from reaching equilibrium is the fact that no company can maintain its once successful competitive position without becoming under attack and, eventually, being surpassed by competitor(s). Thus, as companies are constantly engaged in rivalrous competitive activity, in the form of competitive actions, the market process is continually changing (von Mises, 1949: 258). This line of reasoning is close to the notion of 'Red Queen competition' in organizational ecology (Barnett and Hansen, 1996; Barnett and Pontikes,

2005; Barnett and Sorenson, 2002)[1] which, in effect posits, that constant development (i.e. competitive advantage-seeking competitive actions in the case of competitive dynamics) is required for an organization to maintain its relative fitness *vis-à-vis* its constantly changing environment (i.e. competitive environment).

Consequently, it is commonly attested in competitive dynamics that the notion of *action* is in the very hard core of strategic management. For example, according to Smith et al. (1991: 60), "competitive interaction is a fundamental element of strategic management", whereas Chen and MacMillan (1992), Baum and Korn (1996), and Ferrier et al. (1999) posit, in accordance with the Austrian school of economics, that companies constantly engage in initiative and responsive competitive actions in order to achieve and defend competitive advantage. Moreover, Ferrier (2001) is representative of this stream of literature, as he views that the sequence of competitive actions by a company *is* (or represents) its strategy. Put differently, observing the competitive actions of a company over time is, according to competitive dynamics, witnessing its strategy unfold. Thus, competitive dynamics subscribes to the view earlier put forth by Mintzberg, who has defined strategy as "a pattern in a stream of decisions" by a company (1978: 934).

Consequently, within competitive dynamics, the use and disuse of competitive actions by companies is seen as a central factor in explaining the success and failure of companies (Ferrier et al., 1999)[2].

Therefore, in order to understand the nature and process of competition between rivalrous companies, one has to examine competitive activity, how companies exchange competitive actions (Ferrier et al., 1999). Or, as Chen and MacMillan put it compellingly: "if scholars are ever to understand the complexity of competitive rivalry, it is important to move the level of analysis down to the basic building block of competition – the competitive action-response dyad" (1992: 541). This assertion is well in line with Caves' call for examining "rivalrous moves among incumbent procedures" (1984: 127)[3]. In a normative sense this research is, however, challenging, because, as Barnett and Hansen have (from an ecological perspective, though) noted, "competing organizations often engage in complex strategic interactions, with outcomes depending not just on what a firm does, but on what a firm does given what another will do, given what it will do, etc." (1996: 139).

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[1] As noted by Barnett and Hansen (1996), the term 'Red Queen' was originally introduced by Van Valen (1973) to biology (thus referring to biological evolution). However, Van Valen, in his work, refers to Carroll's novel *Through the Looking-Glass* (Carroll, 1871) – a sequel for Carrol's better-known work *Alice's Adventures in Wonderland* (Carroll, 1865) – in which a character 'Red Queen' says to Alice "Now, HERE, you see, it takes all the running YOU can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that." (Chapter II)

[2] The *dis*use of competitive actions has been, however, largely neglected as will become evident below.

[3] By 'incumbent procedures' Caves refers to routine actions of companies which do not display "committed competition" (1984: 127) or, put differently, do not "involve resource commitments that are irrevocable for nontrivial periods of time" (ibid.).

Nonetheless, the research on competitive dynamics during the past two decades has taken the challenge of studying the exchange of competitive actions and their performance implications seriously, producing numerous substantial contributions to the literature on strategic management. It has been demonstrated, for example, that dominant companies are likely to experience deterioration in their market share if they remain passive, content with their previous success when facing motivated and aggressive challengers (Ferrier et al., 1999), that the top management team composition affects the competitive behaviour of companies which, in turn, has performance implications (Ferrier, 2001; Pegels, Song and Yang, 2000); that small and large companies tend to behave differently (Chen and Hambrick, 1995); that certain characteristics of initiative competitive actions are predictive for subsequent responsive actions (Smith et al., 1991); and, that, under certain circumstances, simplicity in the competitive behaviour can be harmful (Miller and Chen, 1996b).

Moreover, Chen and his colleagues (e.g. Chen, 1996; Chen et al., 1992) have produced a theoretical model which illustrates the "drivers of competitive behavior" (Chen, 1996: 110), namely, awareness (of rivals' actions), motivation (to develop a response) and capability (to perform the response) which normatively suggests that "competitive moves that are covert, hard to respond to, and targeted towards peripheral areas of the market will be much more likely to create 'asymmetries' and thereby yield enduring rewards" (Chen and Miller, 1994: 86).

However, despite numerous studies and otherwise valuable contributions, two central questions have not been seriously addressed in the prior literature on competitive dynamics.

First, there is no widely agreed upon definition of competitive action. Instead, there are numerous definitions which differ from each other concerning one aspect or another. For instance, Smith et al. view competitive action as a "specific and detectable competitive move … initiated by a firm to defend or improve its competitive position" (1991: 61), whereas for Ferrier et al. competitive action means "any newly developed market-based move that challenges the status quo of the market process" (1999: 373). Even though, at first glance, the differences between these exemplary definitions may seem to be about wording, there are two key notions in these definitions: *detectable* and *market-based*. The first definition necessitates detectability (by an observer external to a company performing the action), whereas the latter does not; but the latter, in turn, reserves the status of competitive action for only market-based actions and not, for instance, for actions internal to companies such as organizational restructuring or the initiation of a new product development project. In addition to these two exemplary definitions, the prior literature contains several other definitions with corresponding differences concerning what a competitive action is (and, thus, what it is not). Furthermore, even though prior studies have produced several definitions of competitive action, none of these has presented a rigorous and explicit theoretical foundation for the definition.

Second, there is even less consensus concerning what is the possible variety of competitive actions, the building blocks of competition, which are available for companies to choose from. According to some authors, there are six such actions (e.g. Ferrier et al., 2002; Ferrier and Lyon,

2004), and according to others no fewer than 69 (Offstein and Gnyawali, 2005a, 2005b), while some authors have settled for only three (Young et al., 1996; Young, Smith, Grimm and Simon, 2000). Moreover, apart from the difference in the number of actions enumerated, the accounts of the variety of competitive actions are not mutually commensurate as they contain more or less different actions and, furthermore, in many cases actions which are specific to only one industry.

These two deficiencies in the prior literature carry significant implications for research on competitive dynamics.

First, the lack of a properly derived and theoretically rigorous definition for competitive action implies that there is no clear understanding of what competitive action actually *is*. In other words, if a company performs a given action, it may or may not be perceived as a competitive action, depending on the definition of choice. Moreover, there is no rigorous theoretical framework to resolve this question. Thus, even though "competitive interaction is a fundamental element of strategic management" (Smith et al., 1991: 60), and an individual competitive action is the "basic building block of competition" (Chen and MacMillan, 1992: 541), and scholars must examine competitive activity "to truly understand competition" (Ferrier et al., 1999: 373), there is, surprisingly enough, no proper understanding as to what these building blocks, theoretically speaking, are.

Second, the lack of consensus concerning the variety of possible competitive actions means that it is not known what actions (again, theoretically speaking) are available for companies in their effort to enhance and defend their competitive position. Prior studies have, of course, identified some competitive actions (in accordance with the definition of competitive action in each individual study), but the variety of competitive actions in each case, virtually without exception, has been based on what each study has empirically found the sample companies *have used* in the light of data gathered for the study, not on what the companies *could have* used. Therefore, without a theoretical (i.e. not empirical) account of the variety of competitive actions it remains virtually impossible to detect the *absence* of certain competitive actions in an empirical sample. Moreover, as the variety of competitive actions has mostly been based on the empirical data of each individual study, the varieties of competitive actions differ between most studies[4], making it difficult, if not impossible, to compare findings across studies. And, finally, several studies include competitive actions which are specific to only one industry (e.g. the adoption of a frequent flyer program in the context of the airline industry), which makes such varieties of competitive actions practically impossible to be used in other industry settings.

Taking this together, these deficiencies mean that the assertion that "the dynamic features of competitive interaction and, more specifically, the means by which firms build competitive advantage have remained largely hidden and unexplored" by Smith et al. (1991: 60) to some extent still holds true, as there is no proper understanding as to what competitive action actually

[4] To be precise, there are some airline industry-based studies in which the variety of competitive actions is nearly identical between studies. These studies, however, suffer from the next deficiency, namely the industry-specificity of their actions.

is: what competitive action conceptually is (and, thus, what it is not) and what competitive actions there are available for companies.

Thus, these deficiencies translate into the following research questions of this study:

> *Research question 1*: What is competitive action, theoretically speaking, (and, thus, what is it not)?
>
> *Research question 2*: What is, theoretically speaking, the possible variety of competitive actions available to companies in a competitive setting?

Accordingly, this study is twofold by its nature. The first research question concerns itself with conceptual development, whereas the second is concerned with classificatory (or, more precisely, typological) development. Both of these endeavours are warranted both in general and, more specifically, in the context of strategic management.

To begin with, conceptual development and clarity is, according at least to some scholars, essential for strategic management (Seth and Zinkhan, 1991), and, moreover, for organizational theory in general (Osigweh, 1989). Seth and Zinkhan (1991), for instance, assert that the internal consistency of any theory necessitates that the key concepts in that theory are clearly defined and that the interrelationships of such concepts are specified. Moreover, Løwendahl and Revang (1998) underline the importance of research, which is devoted to developing concepts relevant for strategy research whereas Camerer remarks that one of the major troubles in strategic management research is the fact that "concepts are often ambiguous and their definitions are not agreed upon" (1985: 2). And, in particular, Osigweh urges scholars also to specify "what concepts are *not*, in order to better define meaning boundaries" (1989: 579, italics mine).

It must be realized, however, that not all agree that such conceptual clarity is beneficial or even possible. Indeed, Van Maanen (1995a, 1995b), in his vivid expositions, argues (among other things) that concepts are necessarily and (therefore) always ambiguous because they are embedded (and used) in specific contexts, and these contexts always shape their meaning. Moreover, every human being, due to his or her prior history, is equipped with mental content which inevitably influences how he or she uses and understands concepts. Thus, for Van Maanen, there can not be unitary, unambiguous concepts. From a slightly different point of view, this approach is highlighted by the now famous articulation by United States Supreme Court Justice Stewart: "I'm not sure how to define pornography, but I know it when I see it" (Nag, Hambrick and Chen, 2007: 936). But, in contrast, Pfeffer (1993, 1995) argues quite the contrary: according to him conceptual ambiguity (among other things) is evidence of the absence of paradigm consensus (c.f. Kuhn, 1962) in a given field of scientific enquiry, because, under such circumstances, much energy is devoted in definitional efforts and resolving conceptual disagreements which could be devoted to other (probably more productive) scientific endeavours. Thus, according to Pfeffer (1993, 1995), conceptual ambiguity is harmful for any scientific field of enquiry and, therefore, should be resolved. This line of reasoning is to some

degree shared by Nag et al. who, in their study devoted to producing a definition for the strategic management discipline itself, note that "a scientific field is a community of scholars who share a common identity and *language*" (2007: 937, italics mine). Thus, in their view conceptual agreement (i.e. common language) is not only desirable but is, indeed, a necessary condition (but not a sufficient one, see Hambrick and Chen, 2008) for a community of thought to qualify as a scientific field[5].

Nonetheless, even though the commentary by Hambrick and his colleagues (Hambrick and Chen, 2008; Nag et al., 2007) can arguably be read in a less literal sense (whereas those by Pfeffer [1993, 1995] probably can not) suggesting that perfect conceptual agreement need not be in place, but some rough consensus must (e.g. conversation taking place using the same concepts, even though there are nuance differences), concepts are still highly important, because all human conversation – scientific or otherwise – employs these and, concepts carry at least some of the meaning in this conversation (and, furthermore, all the meaning when the conversation takes place in printed form).

Indeed, Warren (1991) suggests that concepts, from a psychological point of view, are involved in every mental operation and that people can not form a belief about any perception without constructing a concept of the object (physical or non-physical) first. Accordingly, he notes that concepts are the fundamental building blocks of our knowledge about the world around us. Moreover, he posits that usually concepts are formed with an abstraction of sensory inputs or observations, which he calls the 'basic act of recognition'. From the perspective of cognitive psychology, in turn, Smith and Medin (1981) note that without concepts even normal everyday life, let alone any serious scientific endeavor, would be particularly challenging as every stimuli would be unique and one would be immersed by the sheer diversity of stimuli provided by his or her environment. Moreover, they note that without concepts one could remember only a small fraction of the stimuli he or she has encountered, because, as noted by Hahn and Carter (1998), no stimulus is exactly the same as any stimulus met before. Concepts, however, provide a solution to this problem. With concepts we do not have to perceive most of the stimuli as unique but rather as instances of concepts we already have some knowledge about (Smith and Medin, 1981). Therefore, concepts serve the purpose of cutting down the amount of stimuli we have to process. Or, in Smith and Medin's words, concepts "give our world stability" (1981: 1). Moreover, concepts provide us with the terminology for discussing and remembering phenomena. Schyns (1997) accompanies this view by noting that in order to allow higher-level cognition to take place, stability must emerge from the low-level and ever-changing variation of stimuli provided by one's environment. According to him, and analogously with Smith and Medin (1981), concepts are the tools which enable this stability to emerge, as concepts are abstractions that omit irrelevant variation (from a cognitive point of view) from stimuli. Thus, concepts are of paramount importance and in a central role, not only in scientific endeavors, but, indeed, in normal everyday life.

[5] Furthermore, Colquitt, and Zapata-Phelan (2007) note that one potential challenge for this conceptual agreement in management science is the constant introduction of new concepts which has the capability to produce (or further) conceptual fragmentation.

Second, with regard to the second research question, classificatory development has been, and is, a central theme in the literature on strategic management. Classification has been of interest in the context of, for example, the classification of organizations (Carper and Snizek, 1980; Doty and Glick, 1994; McKelvey, 1975, 1978; Rich, 1992; Sanchez, 1993) and the classification of strategies (Chrisman, Hofer and Boulton, 1988; Hambrick, 1984). In particular, generic strategies (obtaining a classification of generic or archetypal strategies, see, e.g. Miles and Snow, 1978; Porter, 1980) have been of noteworthy interest in the literature on strategic management (for discussions on generic strategies see also Campbell-Hunt, 2000; Galbraith and Schendel, 1983; Herbert and Deresky, 1987; Murray, 1988; Segev, 1989; White, 1986; Zajac and Shortell, 1989).

Furthermore, as with conceptual development, classificatory endeavors are valuable not only in the context of strategic management, but, again, regardless of the body of scientific knowledge. Indeed, according to McKelvey (1975), generally a constitutive element in the advancement of *any* scientific body of knowledge is the existence of a generally accepted and usable classification scheme of research subjects. More generally, Hambrick has noted that classification is "a fundamental cognitive aid" (1984: 27) that allows us to bring order to an otherwise inchoate field of study. Accordingly, Carper and Snizek state that the classification of objects under examination to groups is possibly "the most important and basic step" (1980: 65) in any scientific research. This view is amplified by Sanchez, as he notes that classificatory efforts are one of the characteristics of a scientific inquiry, referring to chemistry and biology where classificatory systems are seen as their "paramount achievements" (1993: 73). Thus, it seems, classificatory research and corresponding classificatory systems are of particular importance, regardless of the body of knowledge and, therefore, also within strategic management.

Taking the preceding discussion together, this study essentially follows Hambrick (1984) and Osigweh (1989). Indeed, Hambrick has posited that scholars of strategy research need feasible classification systems, and "thus, some strategy research needs to be devoted strictly to the development of these systems" (1984: 28). To answer this request, this study sets itself the goal of developing a theoretically rigorous typology of competitive actions (research question two). However, as Osigweh (1989) attests, such a typology can not be rigorous prior to equally rigorous development in the underlying conceptual foundation and, therefore, before embarking on the typological development, this study is concerned with conceptual development wiht the concept 'competitive action' under particular examination (research question one).

Thus, from a philosophical point of view, this study is concerned with conceptual analysis (what is competitive action) and ontology (what is the variety of competitive action). This fact warrants a brief discussion about the stance I take in the study with regard to these issues, and, correspondingly, what implications these choices may have for the nature of the study.

First, the study is concerned with concepts, the "bridge between mind and world" (Rosch, 1999b, p. 61) as it addresses the question "what is competitive action", a conceptual question. The study is similarly concerned with concepts as the answer to this question and, ultimately, the

definition of 'competitive action' is sought using other concepts such as 'competition', 'believe', 'competitive advantage', 'intentional', and 'contribute', alongside a substantial number of other concepts.

But, then, what is a concept? It seems that there is no consensus on this matter either in philosophical or psychological literature (Barsalou, Simmons, Barbey and Wilson, 2003) where the issue is undoubtedly most discussed. However, following Barsalou et al. (ibid.) in this study concepts are understood to be "knowledge about a particular category" (2003: 84). Knowledge here implies that concepts are mental representations, distinct from words, which, in turn, are often referred to as 'lexical concepts'[6]. Category, in turn, usually refers to a group of things (physical or non-physical) outside the mental realm, which are similar to each other in some important respect. Thus, for instance, to have the concept 'company' (or, as philosophers often put it, to 'entertain' this concept; see, e.g. Davidson, 1991; Levine, 1995) implies knowledge about the category 'company', whose members are real-world companies such as Nokia, Wal-Mart and General Motors. And this knowledge is used, for example, when categorizing real-world entities as companies (e.g. "this particular organization is a company and not a charity organization"), reasoning about companies (e.g. "the primary purpose of this particular company is making profit"), and when understanding sentences containing the word 'company' ("e.g. the third-largest company in Finland considers laying off employees") (c.f. Machery, 2007).

There are, however, several theories describing, often incompatibly with each other, how people acquire, store and use concepts, the focal question being the conceptual structure of human beings. It is relatively commonplace to enumerate at least three such theories (or 'views'): 1. classical view (or definitional view), 2. probabilistic view, and 3. exemplar view (see e.g. Margolis and Laurence, 1999; Murphy, 2002; Smith and Medin, 1981).

The classical view maintains (Margolis and Laurence, 1999: Chapter 1; Murphy, 2002: Chapter 2; Smith and Medin, 1981) that concepts have definitional structures. In other words, a concept has a summary representation, consisting of other concepts, which unambiguously enumerates necessary and sufficient properties (criteria) for the focal concept (Rosch, 1999a, 1999b). This view maintains, for instance, that the concept 'bachelor' has a definitional structure encompassing constituent concepts 'unmarried', 'man' and 'adult' which, being necessary and sufficient, necessitate that the definition of 'bachelor' is 'unmarried adult man' [7]. According to this view, the focal concept in this study, 'competitive action', can be meaningfully defined with other concepts, because 'competitive action' (like other concepts) has a definitional structure (even though, admittedly, a more complicated one than in the case of 'bachelor').

The probabilistic view, in turn, differs from the classical view to some extent (Rosch, 1999a, 1999b; Smith and Medin, 1981). While the view asserts (in line with the classical view) that there

[6] Lexical concepts are "concepts labeled by monomorphemic items" (de Almeida, 1999: 241)

[7] Note that the neither the focal concept nor the constituent concepts have to be lexical concepts, even though in this particular example both the focal and constituent concepts are (happen to be) lexical concepts.

is a summary representation for a concept, it does not necessitate that the instance of a concept should fully comply with this representation when human beings make decisions concerning categorization. Rather, it assumes that an empirical entity is categorized to be an instance of a concept if the entity complies with respect to its properties with the summary representation to some (high) degree. In other words, an instance of a concept may not have some of the properties contained in the summary representation and it may have some properties that are not included in the summary representation, or are found in the summary representation of another concept. However, according to the probabilistic view, an entity is seen as an instance of that concept, whose summary representation it fits best. According to this view, then, there can be a definition for 'competitive action' in the form of a conceptual summary representation, but people can *categorize* the empirical entities they encounter (e.g. as they read pieces of news in the business press) as competitive actions, even though these empirical entities do not *fully* comply with the summary representation. Thus, this view also admits that the conceptual question concerning the nature of competitive action can be meaningfully approached from the conceptual point of view, but the actual categorization that human beings in reality exhibit is a somewhat different process.

The exemplar view asserts (Medin and Smith, 1984; Nosofsky, 1988; Smith and Medin, 1981) that there can not be a unitary summary representation that could describe the properties that are sufficient and necessary for (classical view) or even typical of (probabilistic view) a concept. Instead, this view suggests that a concept may be defined only through the properties of those empirical entities that are *already* identified and known to be instances of the concept. In other words, the exemplar view suggests that concepts are represented by their known instances rather than anything like a unitary description. Thus, according to this view, there is not really any point in constructing a definition of 'competitive action', since people categorize novel empirical entities as instances of competitive action only based on their prior experience with competitive actions, relying on heuristics something like "I recognize a competitive action when I see one". It is a good question, however, as to where these known exemplars come in the first place.

The view I adopt in this study concerning concepts and conceptual analysis is the classical (or definitional) view. This may, at first glance, seem surprising, because all other views concerning concepts[8] have been more or less specifically developed to address the apparent deficiencies of the classical view that a substantial body of theoretical and, in particular, empirical research has surfaced (for a review, see Medin and Smith, 1984). Wittgenstein (1953), for instance, from a philosophical perspective, long ago posited that it is impossible to provide a definition of some concepts. The standard example by Wittgenstein is the concept of 'game' for which, he believed, there can be no satisfactory definition which, in a classical sense, could capture all the forms of game[9] [10]. Nonetheless, it is posited that the classical view is still highly useful, as concepts

[8] There are, in fact, also other views about concepts other than the three discussed above, but these three are the most commonly cited ones.

[9] In Wittgenstein's words: "Look for example at board-games, with their multifarious relationships. Now pass to card-games; here you find many correspondences with the first group, but many common features drop out, and others appear. When we pass next to ball-games, much that is common is retrained, but much

apparently do possess a 'conceptual core' (Medin, 2005; Medin and Smith, 1984: 120), even though this view is not able to explain all the nuances empirical cognitive psychology has revealed concerning human concept acquisition, storage and usage.

However, a particularly essential insight with regard to the current study is that concrete and abstract concepts evidently differ from each other with regard to how people acquire, store and use them (Barsalou and Wiemer-Hastings, 2005; Wiemer-Hastings, Barnard and Faelnar, 2004)[11] because the criticism against the classical view has centered around its deficiencies with regard to *concrete* concepts. As to differences, for example lexical access for concrete concepts is faster than for abstract ones, and concrete concepts are better remembered (see Paivio, 1991 for a review), suggesting two different processes with regard to concept acquisition, storage and usage (Paivio, 1986)[12]. Thus, the "common assumption is that abstract and concrete concepts have little, if anything, in common" (Barsalou and Wiemer-Hastings, 2005: 134)[13]. Moreover, it seems that while other views (like prototypical or exemplar views) may be more productive with regard to concrete concepts (natural kinds like 'apple' or 'zebra', and artifacts like 'pencil' or 'clock'), abstract concepts (like 'truth' and 'invention' or, in a similar vein, 'competitive action'), which are "neither purely physical nor spatially constrained" (Barsalou and Wiemer-Hastings, 2005: 129) are represented in accordance with the definitional specification of the classical view (Barsalou, 1987; Jessen et al., 2000)[14]. Moreover, the classical view concerning concepts is particularly suitable in contexts in which concepts require careful study and contemplation, like in scientific inquiry (Medin and Smith, 1984).

Thus, concepts are mental representations, knowledge about categories, which, according to the classical view, can be (or, perhaps better, must be) defined with other concepts. But what about the relationship between concepts (as mental representations) and words, or more generally, concepts and language? This question is also relevant with regard to this study because, as noted above, conceptual analysis in this study is conducted using words, with natural language. Not surprisingly, there are several widely different views on this issue in philosophical and psychological literature. To begin with, some scholars maintain that there is hardly any necessity

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is lost. Are they all 'amusing'? Compare chess with noughts and crosses. Or is there always winning and losing, or competition between players? Think of patience. In ball-games there is winning and losing; but when a child throws his ball at the wall and catches it again, this feature has disappeared. Look at the parts played by skill and luck; and at the difference between skill in chess and skill in tennis." (1953: §66)

[10] This has not, however, prevented others from putting forth definitions for the concept of game (see Juul, 2003 for a review).

[11] Medin, Lynch and Solomon (2000), however, note that there are also other differences among representation of different concepts: for example, nouns are represented differently from verbs, count nouns from mass nouns, and artifacts from natural kinds.

[12] There is, actually, even empirical neurological evidence suggesting that abstract and concrete concepts are processed differently in the brain (Binder, Westbury, McKiernan, Possing and Medler, 2005; Jessen et al., 2000).

[13] Wiemer-Hastings, Krug and Xu (2001), however, note that abstractness and concreteness may not be two dichotomous categories, but rather two opposite ends of a continuum on which concepts reside.

[14] Another view is that abstract concepts are represented metaphorically (Medin et al., 2000), but this view has faced rather serious criticism (Barsalou, 1999; Barsalou and Wiemer-Hastings, 2005).

(at least in a strict sense) for language in having concepts (e.g. Bloom and German, 2000; Onishi and Baillargeon, 2005). However, others assert that language is a necessary condition for having concepts (e.g. Davidson, 1984: Essay 11; Dummett, 1993) – the so-called 'linguistic determinism hypothesis', or the 'strong Whorfian hypothesis'[15] (Gelman and Gallistel, 2004). Between these contrasting views reside those who maintain that language may not be strictly necessary for having concepts, but language at least influences the way concepts are acquired, stored and used (Levinson, 1996; Perner and Ruffman, 2005; Whorf, 1956); the so-called 'linguistic relativity hypothesis' (Lucy, 1992), or 'weak Whorfian hypothesis' (Gelman and Gallistel, 2004).

In this study I do not take any particular distinct stand with regard to these three viewpoints, let alone trying to resolve the issue, but I rather acknowledge the existence of those, since the study is, nonetheless, concerned with conceptual analysis (what is competitive action). However, in order to conduct conceptual analysis, it is necessary to be able to approach the subject of analysis somehow, and in the case of this study this must be done using language, with lexical concepts[16]. This approach is, in addition, also the standard approach in conceptual analysis in philosophy (Bealer, 1998; Chalmers, 1996; Jackson, 2000), and, as such, an established method in that context. Thus, it is, for practical purposes, tentatively assumed as in Barsalou, Yeh, Luka, Olseth, Mix and Wu (1993), that *meanings* (understandings of linguistic expressions like words and their combinations) are equivalent to or at least resemble concepts, the psychological representations of categories. This stand also gains support from the commonly-attested notion that "[l]anguage is used, among other things, to exchange information about the world" (Hagroot, Hald, Bastiaansen and Petersson, 2004: 438) and from the fact that one motivation for this study is, in fact, to facilitate discussion and exchange of information within the competitive dynamics research community by way of proposing a conceptual typology for common use.

Now, in addition to conceptual analysis, this study, as noted above, also concerns itself with an ontological question in proposing a typology of competitive actions, since the typology is, to begin with, intended to answer an ontological question: what (competitive actions) there are, a basic question in ontological contemplation (Fine, 1991 p. 264).

There are, however, different approaches one may choose when approaching ontological questions either in general or in a particular context. According to Fine (1991: 264), "[f]or some, it is merely a matter of existence or being; for others, it is a matter of *real* existence of being" (italics in original). Thus, an ontology may describe what there *may* (in a theoretical sense) be, or what there *actually* is (in an empirical sense). In this study I quite specifically take the former view, addressing the question concerning what competitive actions are *available* for companies (in a theoretical sense), not considering whether a particular company or a sample of companies have actually used any particular action enumerated by the typology. According to Fine, neither of these two approaches is inherently more valuable than the other, because "[t]here is nothing

[15] The notion 'Whorfian hypothesis' refers to the seminal works on the relationship between language and concepts (or, alternatively, between language and reality) by Whorf (1956)

[16] Recall, again, that the use of lexical concepts (i.e. natural language) does not imply that lexical concepts are only possible concepts.

which counts as *the* correct ontological stand; there are merely different, equally legitimate, stands" (1991: 264, italics in original). The choice of theoretical stance I take in this study is, however, warranted, because when studying the performance implications of different types of competitive behavior (consisting of individual competitive actions), it is not only important to discover what competitive actions companies have used, but also what competitive actions they have *not* used which, after all, would have been available. In other words, it is equally important to discover what companies did not do as it is to ascertain what they actually did.

Furthermore, from a metaphysical point of view, I do not, of course, by any means try to develop anything like a complete system of categories, an "inventory of all existents" (Rosenberg, 1987: 387), but instead I am strictly concerned with the ontology of competitive actions, a domain-specific ontology for studying the actions of rivalrous companies in a competitive setting. But, within the limits of this domain-specificity, I intend to meet a central qualification of a proper ontology: collective exhaustion. In other words, the typology of competitive actions proposed in this study is intended to enumerate all possible competitive actions that are available for companies, deriving this from the theoretical premises for the typology.

It must be noted, however, that it is questionable whether any ontological categorical system can be *universally* exhaustive, even within a specific domain of knowledge. Instead, it is very likely that universal exhaustion can not be achieved, since any ontology is constructed according to some organizing principles. Indeed, even the metaphysical ontologies of 'everything' differ from each other with regard to the organizing principles according to which they are constructed (see, e.g. Chisholm, 1996: 3; Grossman, 1988: xvi; Johansson, 1989: 20). Therefore, the typology of competitive actions I propose in this study is intended to be exhaustive only insofar as its theoretical premises (i.e., organizing principles) are concerned. Thus, an alternative selection of theoretical premises may well yield a different result. For example, if one were to select, say, the distinction 'diversification – non-diversification' as one fundamental organizing principle for categorizing competitive actions, the resulting typology would, no doubt, enumerate different categories than the one I put forth subsequently in this study. However, the theoretical premises selected as the organizing principles in the typology in this study are intended to be very general (e.g. including no industry-specific terminology or terminology concerning specific generic strategy types) to encompass the general essence of intentional action on the one hand and competition on the other.

As to the theoretical foundations of this study, the theoretical premises for conceptual development, the first part of the study, are twofold, encompassing the philosophical theory of action and the strategy theory on competitive advantage. The philosophical theory of action is, first of all, used to provide criteria for distinguishing between intentional actions and other kinds of actions. This theoretical premise is warranted for two reasons. First, the theory of action concerns itself first and foremost with *intentional* action (what is intentional action and what is not) and, moreover, competitive action *is* intentional action. Indeed, according to the Austrian school of economics, a usual theoretical premise underlying competitive dynamics, companies,

faced constantly with a competitive situation, act purposefully, engaging in planned actions to earn profits (Schumpeter, 1934; von Mises, 1949). And second, the theory of action in the philosophical tradition is warranted because the theory of action addressing the notion of intentionality within philosophical literature has considerably long traditions[17]. Furthermore, the philosophical theory of action is also used in order to address the question of agency in competitive action, i.e. resolving when a member of a company (e.g. a CEO) is acting on behalf of the company as a whole and when not. The strategy theory of competitive advantage, in turn, is used to address more detailed questions concerning the nature and, more precisely, sources of competitive advantage in order to resolve two central disagreements with regard to prior conceptualizations of competitive action.

The theoretical premises for the typological development, the second part of the study, are also twofold. Again, the philosophical theory of action has a central role in providing the account of the 'elementary' actions with regard to any intentional action. This account is supplemented by the resource-advantage theory of competition (or, alternatively, the general theory of competition) which, in turn, provides the domains of action in a competitive setting. The typology of competitive actions will be formed by integrating these two theoretical premises.

The study, after this introductory chapter, is organized as follows.

Part One (Chapter 2) is devoted to conceptual development, thus addressing the first research question. This part opens with a literature review of prior conceptualizations of competitive action in order to demonstrate that there are numerous different conceptualizations (or definitions) for competitive action and that there are certain disagreements among these, which have significant implications for the research on competitive dynamics. Furthermore, I will show that none of the prior definitions are explicitly and rigorously theoretically derived. The central purpose of the review is to establish that the first research question is warranted and worth addressing. After this review, the discussion turns to the philosophical theory of action, first for conceptual distinction between actions and events, and thereafter for obtaining the relevant criteria for intentional action in order to distinguish the intentional actions of companies (which competitive action is) from other kinds of their actions[18]. Having accomplished this, the notion of competitive advantage within the literature of strategic management is studied in order to resolve two central disagreements with regard to prior conceptualizations of competitive action, namely, whether or not a competitive action must be detectable by an observer external to the focal company, and whether or not the status of competitive actions must be granted only to actions with a certain 'direction' (e.g. externally directed actions). Building upon all the preceding discussion, Part One concludes with a theoretically rigorous definition for competitive action, thereby providing an answer to the first research question.

[17] Dating back at least to ancient Greece (see, e.g. Ginet, 1990: ix)

[18] I.e. if an action by a company is not an intentional action, it can not therefore be a competitive action either.

Part Two (Chapters 3 through 6) concerns itself in turn with the second research question, thus developing the typology of competitive actions. This part opens with a literature review of prior accounts of the variety of competitive actions (Chapter 3) in order to establish that none of such accounts is theoretically rigorously developed and as such applicable for widespread use across studies with different theoretical interests and empirical settings. Again, the central purpose of the review is to establish that the second research question is warranted and worth addressing. Next (Chapter 4), I construct the typology of competitive actions addressing the deficiencies in prior accounts by integrating the perspectives of the philosophical theory of action (providing elementary action types) and the resource-advantage theory of competition (providing the domains of action in a competitive setting). After this, I compare the resulting typology with prior typologies (Chapter 5) in order to demonstrate that the present typology is able to capture all proper competitive actions[19] in prior typologies, while specifying, based on the preceding theoretical development, a number of competitive action types not present in prior typologies. Part Two concludes with an illustration of empirical applicability of the proposed typology (Chapter 6), the purpose of which is to illustrate the usage of the typology in an empirical setting and, moreover, to provide methodological discussion concerning the usual empirical research design in competitive dynamics research.

Finally, Part Three (Chapters 7 and 8) concludes the study with discussion (Chapter 7) and conclusions (Chapter 8).

[19] I.e. actions meeting the criteria for competitive action specified in Chapter 2.

PART ONE

CONCEPTUAL DEVELOPMENT

2 THE CONCEPT OF COMPETITIVE ACTION

In this chapter I will focus on conceptual analysis and development. The primary aim of this chapter is to produce a theoretically rigorously developed definition for competitive action. Furthermore, in this chapter I will also address a number of other conceptual questions which, to my mind, require clarification in the literature of competitive dynamics.

However, let me first demonstrate that the central conceptual question – that of competitive action itself – is warranted and indeed worth addressing in the first place.

2.1 Prior Conceptualizations of Competitive Action

To begin with, and as noted above, there is not one universally accepted and used definition of competitive action[20]. Instead, there are numerous definitions which are more or less different from each other. Therefore, in this sub-chapter definitions of competitive action in prior literature are reviewed in order to see to which degree, and over which aspects, these agree and disagree. One of the central concerns below is whether or not a given definition is theoretically or otherwise properly derived, and if so, how carefully.

First, Smith et al. have defined competitive action as a "specific and detectable competitive move … initiated by a firm to defend or improve its competitive position" (1991: 61). This definition is also adopted by Ferrier et al. (2002). Similarly, Smith et al. define competitive response as a

[20] To be precise, there is also a prominent action-reaction-related research stream in the marketing literature (see, e.g. Leeflang and Wittink, 1996, 2001), but since it is mostly concerned with "marketing actions" (Steenkamp, Nijs, Hanssens and Dekimpe, 2005: 35), this stream is not included in the review.

"clear-cut and discernible counteraction taken by a competing firm with regard to one or more competitors to defend or improve its position" (1991: 61). Both these definitions are also adopted by Chen et al. (1992) and, with slightly modified wordings, by Más-Ruiz, Nicolau-Gonzálbez and Ruiz-Moreno (2005). In addition, Ferrier and Lyon also use this definition, with a noteworthy addition: the actions must "appear in the business press" (2004: 321). There are two noteworthy aspects in the initial definition by Smith et al. (1991). Firstly, they suggest that the actions must be specific events rather than development paths or larger collections of unitary actions like internationalization, for instance. Secondly, and noteworthily, they insist that the actions must be noticeable by an observer – probably by an external one with regard to the focal company – rather than actions conducted internally in the organization that remain unnoticed by the competitors, for instance. The latter requisite therefore discards certain actions that may contribute to the competitive position of a company (perhaps in the long run) but do not directly create any immediate competitive pressure towards the competitors or actions that for some other reasons remain unnoticed by external observers. Thus, their definition of competitive actions can be seen as a rather strict one. However, the essence of the competitive action – whether it is initiative or responsive – is that the intention in performing the action is to defend or improve the competitive position of a company. Put differently, competitive actions are such actions that are intended by a company to enhance its competitive position or prevent it from worsening. In this sense, in turn, the definition by Smith et al. (ibid.) is rather loose: it does not exclude any action a company performs from being a competitive action as far as it is performed with either of those intentions. To recapitulate, according to Smith et al. competitive actions are all actions a company performs with the intention of enhancing or defending its competitive position, expect actions that are undetectable by an (external) observer. As to the theoretical derivation of their definition, they note that their "attention to actions and responses is rooted to the writings of Schumpeter (1934, 1950)" (Smith et al. 1991: 61). With this they apparently refer to the 'Austrian' school of economics (which Schumpeter is usually perceived to represent), according to which the market process in which companies participate is constantly in disequilibrium because companies (or 'entrepreneurs' in common Austrian discourse) constantly engage in initiative and imitative actions when trying to enhance their competitive position. However, there appears to be no indication – at least explicitly – that their central notion of detectability (or discernibility) would derive from Schumpeter's work. Therefore, it seems that they refer to Schumpeter in a more general sense to justify the studying of initiative and responsive actions in the first place instead of deriving the precise definition of competitive action from his works.

Smith et al. (1992: 1) employ a similar definition, but with a significant alteration. Namely, they define competitive action as a "specific competitive move … initiated by a firm to defend or improve its relative competitive position". Thus, compared with prior definition by Smith et al. (1991), the requisite of detectability is not present. However, the detectability is present in the view of Smith et al. (1992) concerning reaction (i.e. response) which is defined as a "discernible counteraction, taken by a competing firm with regard to one or more competitors, that is designed to defend or improve its relative position" (p. 1-2). Therefore, it may well be that the omission of detectability (discernibility) with regard to initiative competitive action is accidental

as throughout their work they provide no particular reason to treat initiative and responsive competitive actions differently in this sense. If this presumption is accepted, then the definition(s) of Smith et al. (1992) is, in effect, identical to that of Smith et al. (1991) discussed above. As to the theoretical premises of their definition, Smith et al. (1992) refer to Chen (1988), an unpublished doctoral dissertation.

Miller and Chen, in turn, even though they do not offer an explicit definition for competitive action, seem to perceive by competitive actions "market-oriented changes a company makes in trying to attract customers and outmaneuver competitors" (1994: 2). This interpretation is supported by the fact that they state that such actions constitute the competitive behavior of a company – a term usually used to refer to the aggregate of competitive actions a company performs during a given period of time. If this interpretation is accepted, their definition for competitive action differs rather significantly from those above. Namely, according to this definition, competitive actions are only such actions that are market-oriented and, furthermore, concerned with change. In addition, the company must intend, with such actions, to attract customers and outmaneuver competitors. In a loose reading of the latter aspect there are no substantial differences with the definitions above which would necessitate the intention to be enhancing or defending competitive position. However, the former aspect excludes all non-market-oriented actions, and such market-oriented actions that are not concerned with change, from being competitive actions. Nonetheless, Miller and Chen do not necessitate the detectability of an action for it to be a competitive action. As to the theoretical premises or other derivation of their definition, Miller and Chen do not provide any explicit information concerning this.

Chen and Hambrick define a competitive action as a "specific and detectable competitive move … that may lead to the firm's acquiring its rivals' market shares or reducing their anticipated returns" (1995: 456). This definition is also adopted by Hambrick, Cho and Chen (1996). Consequently, according to the definition by Chen and Hambrick, a competitive response is correspondingly a specific and detectable counteraction "prompted by an initial action, that a firm takes to defend or improve its share or profit position in its industry" (1995: 456). These definitions of action and response are also adopted by Chen (1996). Now, according to the strict reading of the definition of (initiative) competitive action in this case (Chen and Hambrick 1995), the notion of "may lead to…" logically means that it is not impossible for an action to yield these above-mentioned results for it to constitute a competitive action. But, on the contrary, an action may *not* yield the results they mention. However, when referring to the intention-based definition of the responsive competitive action, it might be interpreted that for an action to constitute a competitive action it must be carried out with an intention to improve or defend the competitive position ("[market] share or profit position") of a company. If this interpretation is accepted, the definition by Chen and Hambrick implies that the only prerequisites for an action to be a competitive action to relate to detectability and the intentions of a company. As to the theoretical premises, Chen and Hambrick refer to Chen et al. (1992) (who, in turn, derive their definition from Smith et al. (1991), which is already discussed above) and Chen and MacMillan (1992), who, also operating within the competitive dynamics stream, do not address the

conceptual question of competitive action in a clear-cut form. Therefore, there seems to be no particular theoretical derivation underlying the definition of competitive action by Chen and Hambrick (1995).

Miller and Chen do not offer an explicit definition for competitive action, but on the one hand they note that competitive repertoires – aggregates of such actions – consist of "individual, externally oriented actions" (1996b: 425). And, on the other hand, they also note that competitive repertoires are "the set of market actions used by an organization … to attract, serve and keep customers" (1996b: 420). Therefore, it seems that by competitive actions they perceive market(-oriented) actions, by which an organization aims to attract, serve and keep customers. Thus, according to their definition actions that are not externally oriented and, more precisely, market-oriented or market-based, are not competitive actions. Moreover, such actions must be carried out with an intention to attract, serve and keep customers. However, they do not include the prerequisite of detectability in their definition. As to the theoretical derivation of their definition, Miller and Chen refer to prior studies on competitive dynamics when enumerating examples of different types of competitive actions, but do not seem to employ a theoretical derivation for the concept of competitive actions itself.

In another study (Miller and Chen, 1996a) they offer a similar but slightly augmented definition of competitive action – again through the definition of competitive repertoires. Namely, they state that competitive repertoires consist of "market-oriented actions used by individual firms to attract customers and cope with rivals" (p. 1210). Thus, the extension is coping with competing companies, i.e. rivals. With regard to the derivation of their definition, they refer to their earlier work (Miller and Chen, 1994), which has already been discussed above.

Baum and Korn, in turn, have explicated that competitive actions and responses ('countercompetitive actions' in their terminology) "represent clear, offensive challenges that invite competitor responses on the one hand, and obvious signals of retreat or acquiescence on the other" (1996: 257). Therefore, according to their definition competitive actions are such actions which exert competitive pressure on rivals (thereby inviting responses), or such actions which signal withdrawal from competitive engagement. Their rhetoric ('clear', 'obvious signals') forcibly suggests that the actions must be detectable at least by competing companies. However, Baum and Korn do not explicitly derive their conception of competitive action from prior literature, even though they do refer to prior literature on competitive dynamics for justifying studying rivalrous interaction in general and for providing examples of different types of competitive actions.

Ferrier et al. define competitive action as "any newly developed market-based move that challenges the status quo of the market process" (1999: 373). By status quo they understand customary, patterned competitive behavior. Therefore, in the spirit of the 'Austrian view of strategy' (Jacobson, 1992), they emphasize novelty in their conception of competitive action. Now, according to this definition, an action, in order to qualify as a competitive action, not only must be market-based, but additionally newly developed and, furthermore, must challenge the

prevailing equilibrium in the market. Even though they do not explicitly mention detectability in their definition, an action, for it to disrupt the status quo of the market process, most certainly must be noticeable by one or more parties involved in that market process. As to the theoretical basis for their definition, Ferrier et al. (1999) refer to Jacobson (1992), who, in turn, reviews the 'Austrian school of strategy' (implying the Austrian school of economics as an underlying basis). Therefore, Ferrier et al. do have a theoretical foundation for their definition (even though the derivation is not overly explicit), since the notions of market process, innovation/imitation and disequilibrium are rather central for the Austrian school of economics (Schumpeter, 1934, 1950; von Hayek, 1937, 1945; von Mises, 1949). In other words, the selected theoretical foundation does provide support for the notion 'challenges the status quo of the market process', and, therefore, also for the notion of market-basedness.

Shaffer, Quasney and Grimm (2000), in turn, very explicitly divide actions of companies into two types: market actions and non-market actions. Concerning market actions, they rely on Smith et al. (1991), defining such actions as "specific and observable moves initiated by a firm to defend or improve relative competitive position" (Shaffer et al., 2000: 127). And second, concerning non-market actions, they rely on Baron (Baron, 1995, 1997), according to whom such actions are "actions taken in the nonmarket environment to create value by improving its [company's] *overall* performance" (Baron, 1995: 47, italics in original). By non-market environment Baron (1995, 1997) understands an environment in which social, legal and political arrangements are in a central defining role. In addition, according to Baron, in a non-market environment public institutions are central actors. However, Shaffer et al. (2000), in their work, seem to equate competitive actions with market actions, implying that competitive actions may not include non-market actions. Hence, their definition for competitive action is in effect the same as the one by Smith et al. (1991) already discussed above.

Ferrier sees competitive actions as "externally directed, specific, and observable competitive moves initiated by a firm to enhance its competitive position" (2001: 859). This definition for competitive action is also adopted by Lyon and Ferrier (2002), and Ferrier and Lee (2002). Thus, the definition of competitive action used by Ferrier and his colleagues is essentially the same as the one by Smith et al. (1991) with the explicit addition of external direction and the omission of defending the competitive position of a company. As to the derivation of this definition, Ferrier (2001) refers to prior authors on competitive dynamics (Ferrier et al., 1999; Smith et al., 1992; Young et al., 1996).

And finally, Chen, Venkataraman, Black and MacMillan agree with Chen and Hambrick (1995) to some degree: in their view a competitive action is "an action that has the effect or perceived effect of acquiring a share of the market at the expense of its rivals or of reducing the anticipated returns to rivals" (2002: 189). However, they continue in the empirical part of their study by noting that "actions that have no demonstrable impact on market share, such as organizational restructuring, were excluded". A little later they equate actions and responses with 'market moves' which emphasizes the market-basedness of their view on competitive actions.

Nonetheless, they do not provide any explicit information concerning the derivation of their definition for competitive action.

Taking this together, the following table summarizes the definitions of competitive actions briefly discussed above.

Table 1. Definitions of competitive action and competitive response in prior literature

Author(s)	Construct	Definition	Theoretical premises
Smith et al. (1991); adopted by Más-Ruiz et al. (2005), Ferrier et al. (2002), Shaffer et al. (2000)	Competitive action	"specific and detectable competitive move … initiated by a firm to defend or improve its competitive position"	Schumpeter (1934, 1950)
Smith et al. (1991); adopted by Más-Ruiz et al. (2005)	Competitive response	"clear-cut and discernible counteraction taken by a competing firm with regard to one or more competitors to defend or improve its position"	Schumpeter (1934, 1950)
Smith et al. (1992)	Competitive action	"specific competitive move … initiated by a firm to defend or improve its relative competitive position"	(Chen, 1988)
Smith et al. (1992)	Competitive response	"discernible counteraction, taken by a competing firm with regard to one or more competitors, that is designed to defend or improve its relative position	(Chen, 1988)
Miller and Chen (1994)	Competitive action	"market-oriented changes a company makes in trying to attract customers and outmaneuver competitors"	None
Chen and Hambrick (1995); adopted by Chen (1996), Hambrick et al. (1996)	Competitive action	"specific and detectable competitive move … that may lead to the firm's acquiring its rivals' market shares or reducing their anticipated returns"	Smith et al. (1991), Chen and MacMillan (1992)
Chen and Hambrick (1995); adopted by Chen (1996)	Competitive response	"prompted by an initial action, that a firm takes to defend or improve its share or profit position in its industry"	Smith et al. (1991), Chen and MacMillan (1992)
Baum and Korn (1996)	Competitive action	"offensive challenges that invite competitor responses"	None
Baum and Korn (1996)	Competitive response	"obvious signals of retreat or acquiescence"	None

(Table continues on the next page)

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Miller and Chen (1996b)	Competitive action	"market-oriented actions, by which an organization aims to attract, serve and keep customers"	None
Miller and Chen (1996a)	Competitive action	"market-oriented actions used by individual firms to attract customers and cope with rivals"	Miller and Chen (1994)
Ferrier et al. (1999)	Competitive action	"Any newly developed market-based move that challenges the status quo of the market process"	Jacobson (1992)
Ferrier (2001); adopted by Lyon and Ferrier (2002), Ferrier and Lee (2002)	Competitive action	"externally directed, specific, and observable competitive moves initiated by a firm to enhance its competitive position"	Ferrier et al. (1999), Smith et al. (1992), Young et al. (1996)
Chen et al. (2002)	Competitive action	"an action that has the effect or perceived effect of acquiring a share of the market at the expense of its rivals or of reducing the anticipated returns to rivals"	None

Now, four issues emerge from the prior conceptualizations of competitive actions discussed above.

First, nearly all prior conceptualizations acknowledge that competitive actions are goal-directed, done for a purpose. For example, several prior conceptualizations posit that the purpose of a competitive action is to enhance the (relative) competitive position of a company. Therefore, competitive actions are rather universally seen as *intentional actions*, actions done for a purpose. This is perhaps not a surprising finding since, as noted above, it is rather customary to have the Austrian school of economics as an underlying theoretical premise for studying initiative/imitative competitive interaction and because this theoretical perspective very explicitly views such actions by companies as intentional (i.e. purposeful or planned) actions. This being the case, examining what counts as an intentional action and what does not will help us to address what is a competitive action (as an intentional action) and what is not.

Second, with regard the *content nature* of competitive action, prior definitions seem to disagree with each other. Even though most, if not all, prior definitions agree that competitive actions are done for a purpose, there seems to be disagreement (at least a terminological one) as to what the purpose or goal of such actions are. Therefore, it would be productive to examine whether these terminological differences can be reconciled.

Third, prior definitions disagree on two more specific aspects. On the one hand, there is no agreement on whether an action by a company, for it to qualify as a competitive action, has to be market-directed, externally directed or internally directed, or some combination of these. On the other hand, prior conceptualizations seem to differ also in terms of whether they necessitate the

detectability of a competitive action or not. In other words, does an action, for it to qualify as a competitive action, need to be detected and if so, by whom? These two more detailed issues will be addressed below as well.

Fourth, and essentially, with regard to the theoretical foundation or derivation of the definition for competitive action, the studies fall into three broad categories. First, some studies do not provide any information concerning the origin (theoretical or otherwise) of their definition: they merely state the definition. Second, some studies refer to prior literature on competitive dynamics as the origin (in a strict sense) or, more commonly, motivation (in loose sense) for their definitions. And third, a few studies base their definition on the Austrian school of economics. However, even in this case the resulting definitions disagree on certain specific aspects. Therefore, it seems warranted to address the conceptual question of competitive action in a rigorously theoretical manner.

Addressing this conceptual question in such a manner not only enables a theoretically explicitly derived definition of competitive action to be developed, but, in addition, it allows the more specific disagreements enumerated above to be reconciled.

Since there seems to be a fairly wide consensus among prior authors about that competitive action is intentional action, let me first begin with examining what the notion of intentional action implies with regard to the concept of competitive action. Or, put otherwise, as competitive action is rather universally perceived to be intentional action, examining what is *not* intentional action allows, correspondingly, to delineate what actions by companies are *not* competitive actions. As noted above, the fundamental theoretical perspective concerning intentional action is the philosophical theory of action.

However, before addressing the notion of intentionality, there are two preliminary issues which should be addressed first, both of which derive from the philosophical theory of action. First, in order to contemplate the notion of intentional action properly, the concept of action must be clearly distinguished from certain other concepts (like 'event' and 'activity') in order to avoid conceptual confusion[21]. And second, as the philosophical theory of action is primarily developed to study actions by individual human beings, it must be shown that this theoretical perspective can be meaningfully applied to such collective actors as companies instead of applying this theory to competitive action without any critical considerations. Let me now first turn to the conceptual discussion concerning actions, events and such interrelated concepts.

[21] To illustrate this possible confusion, Smith, Grimm, Gannon and Chen (Smith et al., 1991), for instance, use both expressions 'competitive event' and 'competitive action' in their work to refer to both initiative and responsive competitive actions.

2.2 Events and Actions (and the Like)

As noted above, in some previous studies, authors have sometimes used the terms 'event' and 'action' slightly ambiguously. For instance, Pegels et al. note that in their study "[a]n event is defined as a market move (either an initial action or a response) taken by a firm which is followed by at least one response or preceded by an initial action" (2000: 915). Therefore, in their study 'event' is equated with 'competitive action' (also 'market move' in their terminology)

Or, to give another example, Smith et al. describe that in their study they "identified a series of important competitive events from an eight-year review of each issue of *Aviation Daily* and used a predesigned, structural coding schedule to analyze the content of each event" (1991: 69, emphasis in original) and continue that the data so gathered consist of "actions and responses, which in combination we refer to as competitive events" (p. 70). Thus, in their study, 'competitive action' (initiative or responsive) is equated with 'competitive event'.

Therefore, it seems that the notion of event, in addition to action, is used in the study of competitive actions, or, in the words of Ferrier "competitive action events" (2001: 859). But what is the mutual relation between the constructs 'event' and 'action'? In other words, are there any differences between these two concepts, and if so, what are these differences?

To begin with, Riker (1957) notes that an event (that is, any event) is determined by a spatial-temporal situation which provides the boundaries of the event with regard to both space and time. Therefore, as pointed out by Quinton, it is appropriate to enquire with regard to every event "When did it happen?" and "Where did it happen?" (1979: 208). And indeed, according to Dretske (1968), it is not only appropriate to ask these questions with regard to events, but an event expression is *any* expression *E* which generates meaningful questions of the following types:

1. (Temporal aspect) "When did *E* occur?", or "When will *E* occur?", and
2. (Spatial aspect) "Where did *E* occur?", or "Where will *E* occur?"

Thus, according to Dretske, if *E* (as inserted in the question types above) generates meaningful questions of types 1 and 2 above, it is *necessarily* an event description and, therefore, this description denotes an event. Consider, for instance, an event description 'opening a new production facility'. In this case the questions above would take the following form:

1. (Temporal aspect) "When did *opening a new production facility* occur?", or
   "When will *opening a new production facility* occur?", and
2. (Spatial aspect) "Where did *opening a new production facility* occur?", or
   "Where will *opening a new production facility* occur?"

As 'opening a new production facility' generates meaningful questions with regard to both spatial and temporal aspects, 'opening a new production facility' must be, in the spirit of Dretske, an event description and, therefore, opening a new production facility must be an event. Moreover, if meaningful answers can be provided for both of the question types (providing details about the location and the date [and, perhaps, the time] in which the event took place or will take place), as usually is the case, then opening a new production facility is an event also, according to Riker (1957).

Consider another example, the event description 'destruction of a production facility in a fire'. This event description, too, in a Dretskian (Dretske 1968) sense, denotes an event, since the event description does generate meaningful questions with regard to both the temporal and spatial aspects[22]. And if it is also possible to provide meaningful answers to these questions, destruction of a production facility in a fire is an event also in a Rikerian (Riker 1957) sense.

Thus, both of these exemplary event descriptions (opening a new production facility and destruction of a production facility in a fire) denote an event. However, these events do seem to differ from each other in some qualitative sense. Assume, for the sake of argument, that the production facility is constructed, owned and operated by company *X*. In the former example, some action by company *X* is usually needed for the new production facility to open, whereas in the latter example, no action by company *X* is needed for the destruction of the production facility in a fire[23]. Or, to simplify the composition to highlight the difference, the former example is an action by company *X*, whereas the latter is not, even though both of the examples constitute events. Thus, not all events are actions and, therefore, 'event' is not a synonym for 'action'. Furthermore, as not all events are actions, there must be some other kinds of events, too. What, then, are such events?

Vendler (1957) has approached this question by suggesting a four-item typology of different events enumerating 1. Activities, 2. Accomplishments, 3. Achievements, and 4. States (see also Dowty, 2005 for further elaboration of these categories). Let me briefly review, following Vendler (1957), the nature of each of these.

Activity. Activity is an event which has two distinguishing features. First, it has no culmination point (or, as Vendler alternatively puts it, 'climax'). And second, it is homogeneous in the sense that the event description for the whole event is true for every sub-event of it. For instance, an event 'company *X* produced a product *Y*' may be located in time, since this event typically starts at one point of time, as the production of product *Y* starts and terminates at some later point of time as the production of product *Y* is discontinued, but it does not have a particular culminating point. In other words, the event may terminate at any moment with anything special taking place and it is true to assert that an activity 'company *X* produced a product *Y*' has taken place.

[22] It may be, however, that in this case the questions in the future tense are not applicable.

[23] Of course, it is possible, in principle, for company *X* to intentionally burn down its production facility, but it is assumed here this is usually not the case.

Accordingly, the event description 'company *X* produced a product *Y*' is true for any sub-event (between the starting and terminating points) of the activity. Regarding the temporal duration of the event, it may be said, for instance, that company *X* produced the product *Y* for one year.

Accomplishment. Accomplishment, is not homogeneous and in this sense it has a culminating point. Therefore, an event description of an accomplishment is not true for its sub-events. For instance, an event description 'company *X* built a new production facility' necessitates for it to be true that the new production facility is eventually complete. Put differently, if the action terminates before the production facility is complete (the culmination point) the event description 'company *X* built a new production facility' is not true[24]. And correspondingly, the event description is not true for the sub-events because of the lack of the culminating point. But, nonetheless, it may be said that building the new production facility took, say, six months if the culmination point is attained.

Achievement. Achievement, in turn, lacks temporal duration, being therefore instantaneous, a culmination point in itself. Thus, the question about the homogeneity of an achievement is not reasonable. For instance, an event description 'company *X* opened a new production facility' is an achievement because it is instantaneous and a culmination point in itself (which may be manifested by, say, the CEO of the company cutting a ribbon in the main entrance of the facility, or something similar). Therefore it is not warranted to assert, for instance, that opening the new production facility took two months, even though *preparing* the opening of the facility may have taken that time (which, in turn is an activity).

State. States, finally, do have a temporal dimension and, therefore, states extend over time, having a starting and terminating point. In addition, they are homogenous. In this sense they are like activities. However, what distinguishes them from activities is that states (of the actor) are such that it is not reasonable to assert that the actor has done that. For instance, an event description 'company *X* has the ability to produce product Y' has a starting point (when the ability is acquired) and a terminating point (when the ability is lost or otherwise abandoned) and also satisfies the homogeneity criteria, but the actor can not have *done* that; the company merely has that ability or, perhaps better, is in a state which is characterized by the ability to produce product *Y*.

Now, how do these event categories shed light on the issue concerning the mutual relationships between 'action' and 'event'? In this regard, Vendler (1957) does not discuss the matter very much further beyond his categories, but Bach (1986) does[25]. It turns out that only accomplishments and achievements are actions while activities and states are not. The following figure, adapted from Bach (1986: 6), illustrates these relationships:

[24] Instead, it is true to state that 'company X was building a new production facility' which, in turn, is an activity.

[25] Bach (1986) employs a slightly different terminology, however. For instance, he uses the term 'eventualities' in the sense of 'events' by Vendler (1957) and, correspondingly, 'events' in the sense of 'actions'. In Figure 1, however, the terminology by Vendler is used for considerations of consistency.

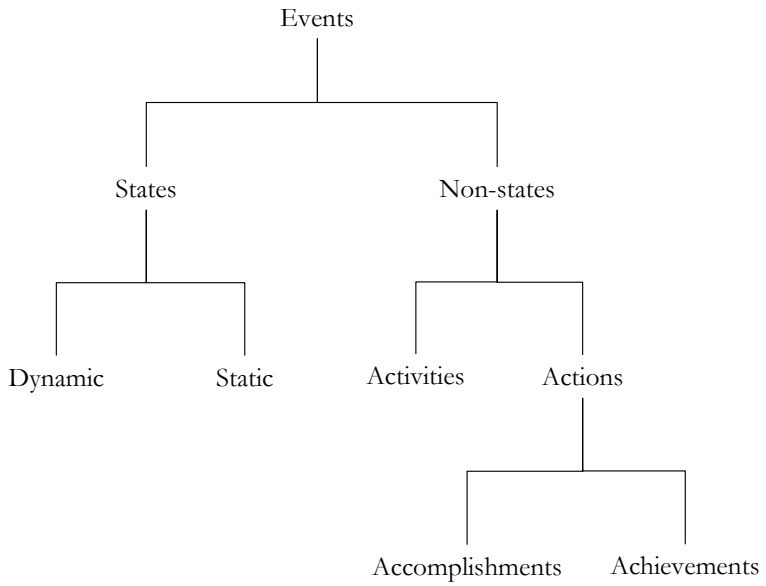

Figure 1. Relationships between actions and other events

As Figure 1 depicts, the basic distinction is between state events and non-state events[26]. As actions are included under non-state events, it follows that no state can qualify as an action. The distinction between dynamic and static states is concerned with whether there is any (definite) change involved in the event[27]. Non-states, in turn, can be divided into activities and actions[28]. Activities, in turn, as suggested by Bach, are process-like and, as noted above, lack a culmination point and, are therefore not proper actions. In other words, what distinguishes between non-state events, which are actions, in contrast to such events which are not, is the existence of a culmination point. Therefore, an event such as 'company *X* produced product *Y*' does not qualify as an action, but instead is an activity, or, in the vocabulary of Bach, a process. To recapitulate, only such events which are not homogeneous, i.e. have a culmination point (accomplishments), or are culmination points themselves (achievements), constitute proper actions. This, however, does not imply that all such actions are necessarily *intentional* actions – an aspect yet to be addressed.

Hence, 'company *X* produced product *Y*' is not a proper action (rather, it is an activity) but 'company started the production of product *Y*' is (more precisely, it is an achievement). In a similar vein, 'company *X* had the ability to produce product *Y*' is not an action (rather, it is a

[26] 'State eventualities' and 'non-state eventualities' in the terminology of Bach.

[27] It may be argued that this distinction is rather trivial, but if such distinction is made, a company having a certain ability would be an example of a static state (as no change in the event is necessary), whereas a company suffering from a mass-resignation of its employees would qualify as a dynamic state (the change being a reduction in the number of employees of the company).Moreover, the example discussed above, that of a production facility being destroyed in a fire, can be seen as a dynamic state: the production facility is in a state of burning which (most likely) renders the facility unusable (change from an usable condition to an unusable condition).

[28] 'Processes' and 'events' in the terminology by Bach.

state) but 'company *X* acquired the ability to produce product *Y*' is (more precisely, it is an accomplishment). Henceforth, I will use this view on action throughout this study and I will not make further distinction between achievements and accomplishments unless specifically required.

Thus, with regard to conceptual implications for the research on competitive dynamics, first of all, 'event', in the light of this discussion, is not synonymous with 'action' and, therefore, these concepts should be used carefully. For instance, if the preceding conceptual discussion is accepted, the notion 'competitive event' does include 'competitive action' alone but it can, in principle, include a host of other non-action events with competitive implications as well. For instance, such a competitive event which is not action (from a company's standpoint) can be, say, a company *being granted* a patent for a certain technology. This is an event which, furthermore, usually has some competitive implications, perhaps noteworthy, but it does not involve any action on the company's part[29]. Instead of constituting as action, the event in question most probably is a dynamic state in which the company experiences the transition from the state of not possessing the patent to the state of possessing the patent.

Moreover, if a distinction between responsive and non-responsive competitive actions is needed, for example, the notions 'initiative action' and 'responsive action' with 'competitive action' as a higher-order notion may be more appropriate than reserving the term 'competitive action' for initiative actions alone with 'competitive event' as a higher-order notion.

Now, having discussed the conceptual distinction between the concepts 'event' and 'action' and therefore having obtained an idea as to what constitutes as an action in contrast to other types of events, I will now proceed to addressing the more precise notion of interest: *intentional* action.

2.3 Competitive Action as Intentional Action

While the philosophical theory of action is relatively uncomplicated to apply in the context of competitive dynamics for distinguishing between actions and other kinds of events, applying it to actions by companies (i.e. actions by particular kinds of collective actors) is not so straightforward, theoretically speaking, precisely because of the collective nature of these actors. Therefore, before embarking on the task of examining the notion of competitive action from this theoretical perspective, I will first demonstrate that doing so is (again, theoretically speaking) justified.

[29] It may be argued, however, that the company must have applied for the patent in the first place and, therefore, this event necessitates some action on the company's part. However, it is arguably more appropriate to treat *applying* for the patent and being *granted* the patent as two separate events.

2.3.1 Applying the Philosophical Theory of Action to Competitive Action

Addressing the question of intentional action – what constitutes an intentional action and what does not – has rich and long traditions in philosophy, dating back to ancient Greece (Ginet, 1990). Therefore, there is every reason to expect that the notion of action (what is action, what kinds of actions there are, and so on) is considerably more developed in the literature on philosophy than in the literature on competitive dynamics within the more general literature of strategic management. This is also the reason why the philosophical theory of action is selected in this study as the theoretical body with which the question of intentionality is addressed.

However, in order to validate the use of the philosophical theory of action to approach the notion of competitive action, and because this theoretical premise has not been used in any prior study on competitive dynamics, it must first be established that the philosophical theory actually can be put to such use in the first place. In other words, next I will show that the philosophical theory of action can accommodate the notion of competitive action – tentatively viewed as action by companies in a competitive setting – as a form of collective (in contrast to individual) action.

2.3.1.1 Collective action – is there such a thing?

In the philosophical theory of action, studying collective action (or, sometimes, social action) has a much shorter history than that of individual action. Indeed, Tuomela (1997) notes that the first 'modern' systematic accounts of collective action in the philosophical literature did not appear until the 1980s (see, e.g. French, 1984 for such a treatment). With regard to this study, however, the notion of collective action is very central, since one of the central topics in the (philosophical) theory of collective action is organizational action (Tuomela, 1997), and, furthermore, since in this study competitive action, in turn, is seen as a particular type of organizational action.

Nonetheless, the short history of collective action may be explainable by noting that in the philosophical theory of action it is not straightforwardly clear that collective action – an action carried out by a collective actor such as a company – as such is possible. Or more precisely, it is not self-evident that the concept of group agency is justified (Wall, 2000). Indeed, there are two extreme schools of thought. One, often called 'methodological individualism', denies the concept of group agency, while the other, sometimes called 'metaphysical holism' asserts the opposite (Held, 1970; Wall, 2000). A central source of disagreement may be evident by referring to the remark by Tuomela (1989) according to which collective actors differ markedly from individual actors especially because individual actors (i.e. individual human beings) possess a 'full-blown' mental life and biological bodies, whereas collective actors do not. And, because of the latter,

individual actors are capable of bodily actions, whereas, again, collective actors are not (in the same sense).

Thus, according to French (1984), methodological individualism asserts that an action (or, more precisely, the moral judgment of an action) must always be attributed to individual human beings. Or, if an action is said to be attributed to a collective actor of some sort, it is always reducible to action or actions of one or more individual human beings who are members of the collective (Held, 1970). One of the central standpoints in this line of thought is that without action by human beings as members of a collective there can be no action by the collective, either. In other words, collective actions are always constituted by individual human actions and nothing else. Therefore, the notion of a collective actor which is something more than just a sum total of its members, is not justified. Following this line of reasoning, methodological individualism asserts that the *responsibility* for collective action (or inaction, forbearance, for that matter) must always be attributed to individual human beings and not some 'artificial' collective entity[30].

However, the opposing school of thought, metaphysical holism, asserts that the concepts of collective action and collective agency are very much justified. In Velleman's words collective agency necessitates "…'plural subject' [which] ought to be a single subject that isn't singular – or, if you like, a plural subject that isn't just a plurality of subjects" (1997: 30). According to this view, to begin with, the notion of collective action is very intuitive. Accordingly, as Tuomela (1989) and Held (1970) note, in everyday language we attribute actions for collectives of various kinds. For instance, we commonly attribute actions to collective actors such as sports teams (e.g. "The Finnish curling team defeated the British team in Torino Olympics"), universities (e.g. "Tampere University of Technology appointed two new professors"), companies (e.g. "Nokia introduced a new cellular phone"), and people of nations (e.g. "The Finnish people re-elected Mrs. Halonen as their President"). And, in addition, as Held (1970) notes, we commonly make morality judgments about the actions of companies without seeking individual human beings, the constituent acting members, to blame (e.g. "It is wrong that company *X* incorporated radio frequency tracking chips in their products and therefore I boycott the company by discontinuing to buy its products") or praise (e.g. "Company *Y* is known to treat its employees with such respect and care that I prefer its products over those of its competitors").

Proponents of methodological individualism, however, usually write off arguments of this kind by noting that notions of acting collectives are mere "shorthand devices" (French, 1984: viii) for ascribing action and corresponding responsibility for one or more individual human beings who are members of the collective. Therefore, following this reasoning, the common usage of language does not suffice to justify the concept of collective agency in the strict philosophical sense.

[30] In fact, the vast majority of the literature on collective action (or its non-existence) centrally revolves around the attributability of responsibility judgments of different types of actions for different types of actors (i.e. collective and non-collective).

The second usual argument in favor of collective agency is, as French (1984) posits, that in several countries companies, certain kind of collective actors, have been found guilty of violating law, while, simultaneously, their constitutive members (i.e. employees) have not. Therefore, according to this view, there is something intuitively appealing in the notion of collective agency to such an extent that it has been and currently is a part of the legislative practice in several countries. For instance, in current Finnish legislation there is a concept of a fine imposed on a corporation which does not necessarily entail the corresponding responsibility of *any* of the constituting members of the corporation. Therefore, it may be argued that careful and long legislative contemplation has resulted in the notion of collective agency which may be disconnected (responsibility-wise) from corresponding individual action.

Proponents of methodological individualism, again, would probably dismiss this notion as exhibiting only some culture-related legal conventions, maybe subject to alterations during the course of time, being practiced in some geographical areas. Therefore, the case is very much similar to the previous dismissal of collective agency based on the usage of common language.

Thus far, the question remains: can there be collective agency so that collective actions are something other (perhaps more) than just the sum of the actions of the constitutive members of the collective? And, consequently, if the answer is affirmative, is the notion of collective agency applicable to all sorts of collectives, or only certain kinds of collectives? And, if collective action is applicable to only certain kinds of collectives, what are these collectives? It is clear that the first question must be answered first in order to render the second and third questions meaningful.

First, in support of methodological individualism allowing the existence of collective actions I may turn to Bratman (1992) and Tuomela (1989) by noting that some actions are *by definition* impossible for other than collective actors. For instance, greeting, meeting, getting married and settling a dispute are such actions that can not be performed by individual actors alone or by several individual actors acting independently from each other. In these cases the collective action is not reducible to individual actions without losing the essence of the action. For instance, an event in which two persons raise their hands independently, without interacting with each other, does not contain the essence of the act of greeting[31]. Therefore, this argumentation entails that there are some actions, the descriptions of which are only meaningful for collective actors.

Second, following the spirit of French (1984) and Cooper (1968), collective agency is meaningful because of the possibility of varying membership in (some) collectives. In other words, alterations in membership base do not necessarily result in alteration in the identity of a collective actor. This, in turn, precisely entails that some actions of some collectives are not attributable to their specific individual members. Consider, for instance, an action "company *X* performs an organizational restructuring"[32], here tentatively attributed to a collective actor

[31] Assuming here that greeting involves two persons raising their hands to signal to each other.

[32] Organizational restructuring, despite its possibly long duration, can meaningfully be perceived as an action

company *X*. This action probably takes some time (maybe weeks or months) from initiation to completion. During this time, independently from and because of the action in question, some employee-members may leave the company, whereas some new employee-members may join it. Similarly, if the stock of the company is publicly traded, it is likely that there will also be some changes in the composition of owner-members during these weeks or months. Or, it can be even that the top management (also employee-members) of the company is changed completely in the process. As a consequence, company *X* upon completion of the action is somewhat, maybe greatly, different from company *X* which initiated the action. And still, company *X* remains in existence[33]. Therefore, and essentially, "[n]o determinate set of individuals is necessary for the existence of the collective" (Cooper, 1968: 260).

These arguments may be – and have been – also subject to more fine-grained criticism from the standpoint of methodological individualism. However, with regard to the scope and aims of this study, I will not discuss the debate further here, but instead I henceforth assume, based on the preceding discussion, that the notion of collective agency is meaningful. However, this does not necessitate that the notion of collective agency is universally meaningful, i.e. with regard to all kinds of imaginable collectives. Put differently, it may be that the notion of collective agency can only be meaningfully applied to certain kinds of collective actors, whereas with regard to some other kinds of collective actors the reducibility thesis (methodological individualism) is more feasible. Therefore, I will next review the different types of collective actors in order to see what kinds of collectives can be meaningfully perceived as singular collective actors and, furthermore, in order to establish that companies are such actors and, hence, the philosophical theory of (intentional) action can be applied to study competitive action.

2.3.1.2 Different types of collectives

It is usual to draw a rough distinction between two major types of collectives: to those collectives which have a collective decision method (be it formal or not) to act and to those which have not. For instance, Held has adopted this view and labeled the latter type "random collections" (of people) and the former type "organized collectivities" (or alternatively "organized groups") (1970: 471). In both cases, however, there is some property or properties the members of the collective have in common which distinguishes them from the set that exhausts all the people in the world. For instance, considering random collections, the property that Held (1970) exemplifies is temporal-spatial proximity (e.g. passengers on a specific flight, or customers in a particular restaurant; randomness here being something like 'happening to be at one place at one point of time').

Tuomela (1989) apparently subscribes to this view with regard to its categorical distinction, but discusses the distinction from slightly different premises. Namely, he suggests that two basic

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upon its completion (i.e. it is an accomplishment).

[33] Even though, of course, somewhat altered in precise composition.

types of collective actors can be distinguished in terms of their *structure*, which, in turn, may also imply differences with regard to their decision method for action and inaction. Thus, on the one hand, according to Tuomela, there are collectives with little or no internal structure like demonstrating crowds and spontaneous gatherings of people. Furthermore, and consequently, in this case the component actions of the members of the collective bring about the collective action, but none of the members can represent the collective, or, in other words, can act on behalf of the collective. Moreover, according to Tuomela, the lack of structure implies that the members in such collectives are more or less symmetrically related to each other and thus interchangeable (but see French, 1984: 19-26 for critique). And on the other hand, according to Tuomela, there are collectives with structure such as companies and other kinds of formal organizations. Structure, in turn, implies that such collectives have more or less (but usually more in the case of established companies) designated roles and positions for their members in the structure and, consequently, the members of the collective can represent the collective and act on behalf of it in accordance with their positions. This, furthermore, implies that the members of structured collectives are not generally symmetrically related to each other, but instead the relations are determined by the structural positions.

Thus, considering the terminology and different types of collectives, even though Held (1970) reserves the term 'collectivity' to designate organized collectivities only, for uniform terminology in this study I will henceforth use the neighboring term 'collective' to designate all aggregates of individual actors (with or without a decision method to act or forbear to act, and regardless of structural properties). Correspondingly, I will hereafter call collectives without a (centralized) decision method for action and a (formal) internal structure 'unstructured collectives', whereas collectives with such method and structure will be termed 'structured collectives'[34].

French (1984), however, makes an important remark with regard to unstructured collectives in particular. Namely, he suggests that parceling several individuals into a collective with no structure is somewhat artificial and usually exhibits the preferences of the person who performs the parceling. In other words, the identity of an unstructured collective is dependent on the perception based on which the collective is formed (or perceived). For instance, it may be convenient to parcel individuals at some place at one point of time behaving in a certain way as a collective 'demonstrating crowd', but it could be equally convenient, for instance, to alternatively identify several collectives within the same set of individuals such as 'violently demonstrating crowd', 'demonstrating crowd peacefully carrying banners' and 'bystanders observing the demonstration', and so on.

Nonetheless, Bates (1971) notes that another characteristic distinguishing between these two rough basic types of collectives is that members of an unorganized collective primarily pursue their own goals through their actions (which, taken together, constitute collective action),

[34] Furthermore, collectives with a centralized decision method for acting but without formal structure (and vice versa) are seen to be impossible. Thus, a centralized decision method and formal structure are seen here necessarily as co-existing.

whereas members of an organized collective primarily, as members of the collective, pursue the goals of the collective itself[35].

Between these basic types of collectives, structured and unstructured, fall, according to Bratman (1992), loosely structured collectives, which share some of the characteristics of both previous ones. These collectives exhibit, in Bratman's terms, shared cooperative activity. Here, the individual actors, as members of the collective, pursue the collective goal, but primarily for reasons of their own. Correspondingly, loosely structured collectives usually have some method of making decisions about actions and forbearances, but this method is very *ad hoc* by its nature. This, in turn, implies that such collectives also have a loose and usually temporary structure. Consider, for instance, a group of two students preparing for an exam. In this case, it is likely that the students are pursuing the same goal (e.g. covering efficiently all the exam material during the time available) but probably for reasons of their own (e.g. maximization of their own individual performance in the exam). Similarly, the group is rather likely to have an *ad hoc* decision method (e.g. negotiating) to coordinate their action and some agreed-upon structure (e.g. with regard to roles and distribution of work) for definite duration (e.g. to be dissolved after the exam).

However, Jones (2001) has approached the issue from a completely different point of view. He has typified different collective actors (or 'intentional groups' in his terminology) with regard to the mechanism through which a collective has come into existence. He has identified three such typological mechanisms. Or, put slightly differently, according to Jones, there are three different typological ways in which individual actors can come together to form a collective actor. First, and perhaps obviously, they can do it randomly. For instance, a collective may form as individual people randomly arrive at the department coffee table. In this case Jones speaks about a 'random force'. An action such a collective could exhibit (which is not possible for any of the constituting individual actors) is e.g. disputing. Secondly, individual actors may come together to form a collective because they voluntarily choose to do so because they believe it is beneficial for them. For instance, a collective such as a labor union may form because individual actors (i.e. workers) believe they are better off when organized. In this case Jones speaks about 'self-control'. Third, individual actors may form a collective when another actor or actors (external to the focal collective) reward them for doing so (or punish them for not doing so). For instance, individual actors may form a collective such as a research team in a company because they are properly compensated for doing so. In this case Jones speaks about 'control-control'. Furthermore, Jones notes that the sustaining forces that keep collectives together are essentially analogous. A collective prevails, for instance, if its members perceive that remaining organized as a collective is beneficial for them or, that doing otherwise would be prohibitively costly.

[35] However, as May (1990) notes, virtually any unstructured group can, if severely needed, transform itself into a structured group (at least to some extent). This assertion, in turn, is a central element in the literature on philosophical theory of action examining responsibility of collective *in*action (that is, forbearance) in particular.

Then, taking the preceding discussion concerning different types of collective together, we may combine the views of Held (1970), French (1984), Tuomela (1989), and Bratman (1992) on the one hand, and the view of Jones (2001) on the other to construct a typology of different types of collectives, as illustrated in following figure below.

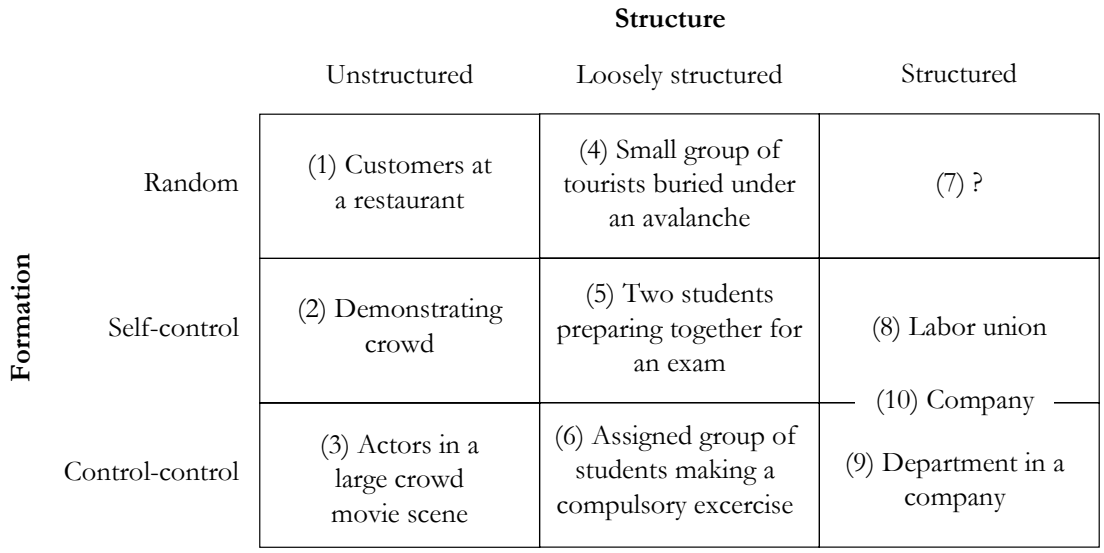

Figure 2. Typology of different types of collectives with examples

Observing Figure 2 above, customers at a restaurant (1) clearly constitute a randomly-formed collective[36], because usually customers, independently of each other, just 'happen to be' in a restaurant at a given moment of time. Consequently, they typically do that for their own individual reasons[37] and in order to further their own goals. And, accordingly, customers in a restaurant typically neither have any internal structure or role-positions with respect to each other, nor an established method of forming collective decisions[38]. Therefore, customers at a restaurant usually are a randomly-formed, unstructured collective.

In the case of a demonstrating crowd (2) it is likely that every individual actor has come to a specific location at a specific point of time *in order to* form a collective because they believe that thus organized they are better able to further their personal goals (e.g. making their messages heard by the authorities). However, typically such a gathering, while not random in terms of formation, lacks an internal structure and thus a centralized method for reaching collective decisions with regard to actions. In addition, the individuals usually do not have specific roles or positions in such a crowd. Therefore, a demonstrating crowd is often formed through self-control by the individual members and is an unstructured collective.

[36] Unless they have collectively agreed to come to a specific restaurant at a specific point of time

[37] Examining the situation at the level of the whole restaurant and ignoring the possibility of small sub-collectives such as birthday parties among the customers.

[38] Unless some severe event such as a fire breaking out in the restaurant necessitates the customers to organize themselves somehow in order to act in a coordinated way. Then, however, the collective transforms itself into a corresponding loosely structured collective depicted in Figure 2 above as (4).

Then, consider actors at a large crowd movie scene (3) such as the battle scenes in the movie *Braveheart* (actors understood here in a philosophical, not theatrical sense). They, together, form a collective (theatrical actors in a particular scene) which is formed by control-control. That is, the organization producing the movie offers the actors monetary or other kind of reward for the individual actors to form the collective. However, the collective constituted by the individual actors is likely to lack a structure with corresponding roles (again, with regard to the structure of the collective, not with regard to the movie) and instead is given orders by the director of the movie and/or his or her representative. Therefore, such a collective is likely to be formed by control-control and to be unstructured.

However, considering a small group of tourists unfortunately buried under an avalanche (4), we supposedly encounter a collective which does not totally lack an internal structure and corresponding methodology to reach decisions concerning action because of the potentially fatal situation they face. Instead, the members of the collective are likely to organize themselves to achieve their collective goal, reaching the surface of the snow, thus enabling them to escape their snowbound trap. Such organization is even more likely if the situation is such that the joint effort of the members is necessarily required for the attainment of this goal. However, it is equally likely that once this goal is hopefully reached, the structure is thereby dissolved. After all, the members of the collective are tourists, who, no doubt, 'just happened to be' in the way of the avalanche and were not seeking to form a collective whose goal is escaping from under the snow. Therefore, such a collective, while loosely structured, is most certainly a random one.

The same structural interpretation applies to a collective of two students preparing for an exam together (5). They probably have some method of reaching decisions for their action and may even have some distinct roles with respect to each other, but the structure they have formed is likely to dissolve after the exam – as the collective is no longer needed. The students, however, do not here constitute an entirely random collective, since there have been some voluntary efforts by them for the collective to form. Therefore, such a collective is formed by self-control and is a loosely structured one.

When the preceding situation is altered slightly, making the group membership compulsory (in order to receive some benefits or to avoid some harm), we arrive at an assigned group of students making a compulsory exercise (6). Here, again, the structure formed to perform the task at hand is likely to dissolve after the exercise is completed, as the structure is no longer needed. However, the forming mechanism is no longer self-control, but control-control, because the students here do not form the collectivity voluntarily, but that is done for them. Therefore, such a collective is formed through control-control and is a loosely structured one.

Skipping (7) for now, which will be discussed below, consider a labor union (8). Such a collective is typically formed by a group of workers to defend and further their rights. Moreover, it is usually a formal organization with a chairman, a secretary, a treasurer and so on. Thus, such a collective has a formal structure and, correspondingly, an established method for making

decisions concerning action. Therefore, such a collective is a formal one, formed by the self-control of its (founding) members.

A department of a company (9) is very likely to have a formal organizational structure and corresponding decision-making procedures and reporting system, making it also a structured collective. However, the employees of the department usually do not voluntarily choose to form such a collective by themselves, but instead the department is formed on their behalf and the employees are then coerced or rewarded somehow to join the department as its members. Thus, such a collective is formed through control-control and is clearly a structured one.

The reason why a company as a whole (10) is located in the figure between (8) and (9) is one of interpretation. Such a collective is most certainly a structured one for the same reasons as a department in such a collective, as discussed above. However, whether a company is formed by self-control or control-control is not at all clear. On the one hand, one might argue that the founding owners of the company have formed such a collective through self-control – believing that they are better off because of the existence of the collective. However, on the other hand, it may be that the founding owners are not themselves employed by the company, in which case the constitutive members of the collective are drawn together mainly through control-control. In either case, the most important aspect here is that a company as a whole is a structured collective.

Finally, let us return to the cell (7) in the matrix depicted in Figure 2 above. The cell is marked with a question mark because it is very questionable whether such a collective can exist, which, at the same time, would have a formal structure with a corresponding established decision-making methodology, while being formed purely randomly. It may be, of course, possible to eventually come up with an example of such a collective with a stretch of the imagination, but it tentatively seems that the existence for structure and decision-making methodology is not compatible with purely random formation. Therefore, Figure 2 does not exemplify any such collective.

It may be argued, of course, that the typology depicted in Figure 2 above is only one way among countless alternatives of constructing a typology of different types of (human) collectives. However, as we will see in a moment, with regard to this study, and especially with regard to the applicability of the notion of collective agency, the present typology is rather appropriate.

Thus far I have argued that the notion of collective agency is conceptually meaningful and thus meaningful with regard to *some* kinds of collectives. Likewise, I have constructed a two-dimensional typology of different kinds (types) of collectives and briefly discussed their central distinguishing properties. However, the two inter-related questions I put forth earlier remain: Is the notion of collective agency applicable to all sorts of collectives or only certain kinds of collectives? And, if collective agency is applicable to only certain kinds of collectives, what are these collectives (and, moreover, are companies such collectives to which collective agency is applicable)? I will address these questions next.

2.3.1.3 Attributing actions to different types of collectives

When contemplating attributing actions to different types of collectives, one is essentially dealing with the question of collective agency. That is, when is it appropriate to *primarily* attribute actions by a collective to the collective itself, and when to its constitutive members as individual actors?

First and foremost, Copp (1979 [cited in Tuomela, 1989]; 1980) is very straightforward and explicit in addressing this question. According to him, "if a group lacks an institutionalized rule, one cannot meaningfully speak of choice of the group, and so cannot speak of an action of the group as such" (1980: 604). He proceeds by noting that the notion of collective agency necessitates that the actions of the component actors are performed for a "common purpose" (ibid.). He also makes a distinction[39] between different types of collective actors; of "civil persons" (analogously with structured collectives above) and "multitudes of men" (analogously with unstructured and loosely structured collectives above) (1980: 596), and notes that actions are collectively attributable only to the former, whereas in the case of the latter the actions are necessarily attributed to the constitutive individual members.

This line of thought gains support from Bates (1971), who notes, as already mentioned, that the members of an organized collective, while acting as members of the collective in their roles in its structure, primarily act on behalf of the collective (representing the collective) pursuing the goals of the collective – the collective goals. Correspondingly, he argues, the members of other types of collectives pursue their own goals through their actions, thus primarily acting on behalf of themselves. It may be argued, however, that the members of a loosely structured collective may further the common goal of all the component actors, but in this case, as Tuomela (1989) suggests, the goal is not that of the collective, but a *joint* goal shared by the members. For instance, the previously-exemplified group of tourists buried under an avalanche may act to further their *joint* goal, that of survival, but probably not primarily because they want to the *group* to survive, but because it is necessary for them to survive as *individuals*.

Therefore, it seems that the notion of collective agency (actions to be attributed primarily to a collective instead of its component members) is only straightforwardly meaningful in the case of structured collectives, because only such collectives have a centralized decision-making system for acting and forbearing and an appropriate structure (with corresponding authorization and control mechanisms) for the members to act on behalf of the collective. In other cases (with respect to loosely structured and unstructured collectives) it seems that, in the terms of Tuomela and Bonnevier-Tuomela (1997), the action is 'distributed collective action', which denotes that actions that are jointly performed by non-collective actors (that is, individuals) and responsibility judgments of the actions, for instance, are to be distributed across the component members.

This interpretation is also in line with the treatment of French (1984), who, in effect, asserts that a collective may be held responsible as a collective actor only when the collective has an

[39] Referring to Hobbes (1651)

established and centralized method of forming a collective intention, and subsequently, acting correspondingly. In his terms, collective agency (with regard to collective responsibility instead of mere individual responsibility) necessitates a 'CID structure' (standing for *C*orporate *I*nternal *D*ecision structure).

Then, combining this discussion about attributability of actions to different types of collectives with Figure 2 above illustrating the different types of collectives, I arrive at a conclusion according to which the crucial aspect with regard to the meaningfulness of collective agency is the existence of a established structure within a collective (with respect to decision-making methodology, representativeness, and so on). Therefore, it turns out to be the case that only structured collectives, marked with gray in the following figure, are capable for acting as a collective – as a singular collective actor.

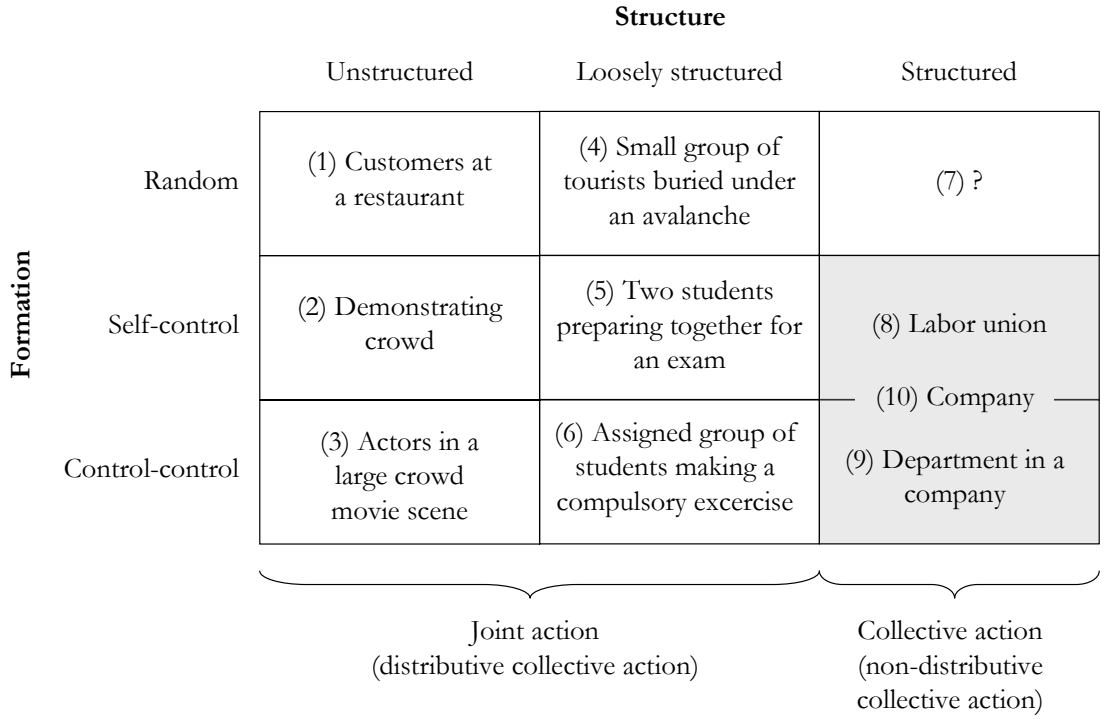

Figure 3. Joint and collective action with respect to different types of collectives

Thus, as structured collective actors can be treated as singular actors (despite their collective nature), the treatment of philosophical theory of action with respect to individual actors also applies to them for this very reason. In other words, the philosophical theory of action, developed primarily in the context of individual action, can be applied to such collective actors which can engage in collective action, which is non-distributive in nature.

Therefore, two essential observations result from this sub-chapter. First, the notion of collective action, according to which actions can be primarily attributed to a collective actor, applies to companies as such collective actors indeed are structured collectives and have a formal decision structure. Second, and because of the first observation, the philosophical theory of action

(essentially discussing individual action) applies to companies as singular actors, and therefore competitive action can be studied with the philosophical theory of action.

Now, since I have established that the philosophical theory of action applies to companies as singular collective actors, I may turn my attention to addressing the question of intentionality in competitive action with this theoretical body of knowledge. In other words, as competitive actions are commonly perceived to be intentional actions, done for a purpose, a central question is: which actions are intentional actions and which are not? This discussion will establish the first set of criteria an action must satisfy for it to qualify as a competitive action, a form of intentional action by companies.

2.3.2 Intentionality and Competitive Action – What Counts as an Intentional Action?

As one might imagine, one central debate in the philosophical theory of action is what counts as an intentional action. As the issue is currently being debated, there is no one and only prominent account on the issue. Instead, there are several more or less comprehensive suggestions concerning what conditions an action must satisfy for it to qualify as an intentional action.

In the following discussion I adopt the relatively recent view of Mele and Moser (1994), which has the benefit of being not overly simplistic, and therefore capable also of taking so-called 'difficult cases' into account. Moreover, the flow of the following discussion conforms to the common style in the philosophical theory of action; the criteria for intentional action are developed and illustrated through a series of thought experiments.

Let me first consider the following exemplary description of an action by a company: Company *X* introduces a new gaming console to the market. Thus, Company *X* by this action, introduces a new product to the market, i.e. makes a new product introduction. In the case it is of no particular interest whether or not the product introduction meets the more specific criteria by Lee, Smith, Grimm and Schomburg who, in their work, have defined product interaction as "a product or service *category* that did not exist prior to the announcement date" (2000: 25, italics mine). Nonetheless, this action is capable of having competitive consequences because new product introductions, particularly when combined with corresponding promotion, typically disrupt the prevailing situation in the market with regard to customers' brand preferences and purchasing behavior (Lipstein, 1968). To continue the example, assume that the functionality of the gaming console is (as it currently usually is) such, that it allows consumers to attach the console to their television set and to play various games with the console which are separately sold (by the same company). The gaming console is priced at production cost (thereby producing no profits for the company) whereas the separately sold games are priced with a significant profit margin. Thus, the company follows a 'captive-product pricing' strategy (Kotler, Wong, Saunders and Armstrong, 2005) in the product introduction. Therefore, the console is indeed meant for gaming use, since the profits of the company will come from the sales of games. However, the built-in hardware and software of the console are discovered by consumers to allow them, with

minor modifications, to convert the consoles into media center computers (see, e.g. den Hartog, Balm, de Jong and Kwaaitaal, 2004 for a brief description of the concept), which can be used for a wide variety of multimedia applications including watching movies, listening to music, viewing digital photographs and accessing web content in addition to mere game-playing. As a result, the gaming use of the console quickly marginalizes and the console becomes perceived as a 'kit-form' (implying that end user tweaking is required) media center computer. In this way, the newly-released gaming console does not disturb the gaming console market in any particular way but it has a significant effect on the emerging media center computer market[40].

Now, is it reasonable to say that the company has *intentionally* introduced a kit-form media center computer to the market? After all, according to our exemplary description, the consumers predominantly purchase the product as a kit-form media center computer. Moreover, the action most likely results in mounting competitive pressure on companies operating in the product category of media center computers and not on companies operating in the product category of gaming consoles. According to the view of Mele and Moser (1994), the answer is no. The company did intentionally introduce a new product to the market, but it did *not* intentionally introduce a kit-form media center computer to the market, which, however, ultimately turned out to be the result. This example illustrates the first condition for an action to constitute as an intentional action according to Mele and Moser:

1. An actor intentionally performs an action at a time *t* only if at *t* the actor has an action plan that includes, or at least can suitably guide, the actor performing the action[41].

Put in other words, the actor must have an appropriate action plan at the time of performing the action that includes, or can at least suitably guide the actor to perform, the action in question for the action to qualify as an intentional action. In the prior action description the company, indeed, did not have an action plan to introduce a new kit-form media center computer to the market and, therefore, the action 'introducing a new kit-form media center computer to the market' was not intentional[42] [43].

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[40] This is actually an exaggerated description of the original Microsoft Xbox gaming console. This gaming console has been found to be modifiable into a media center computer, but it still is dominantly perceived and used as a gaming console (see, e.g. Machrone, 2004).

[41] The specific wording used by Mele and Moser is "[a] person, S, intentionally performs an action, *A*, at a time, *t*, only if at *t*, *S* has an action plan *P*, that includes, or at least can suitably guide, her *A*-ing" (1994: 43, italics in original).

[42] However, it could be interpreted as an intentional action under a different description. If the action description were 'introducing a new product to the market' (having no considerations whatsoever regarding its functionality or product category) the action would be intentional.

[43] The original corresponding example used by Mele and Moser goes as follows. "Consider Laura, a typical young child, who flips a switch, not knowing or even believing that this will (or might) turn on the heat lamp overhead which, in turn, will raise the room's temperature to 82°F. Given no prior familiarity with a heat lamp switch, Laura in fact has no representation whatever of a connection (causal or probabilistic) between her flipping the switch, the lamp's lightning, and the temperature's increasing. Laura thus did not *intentionally* increase the room's temperature, even if she intentionally flipped the switch." (1994: 41-42, italics in original)

Now, consider another exemplary description of a competitive action. Company *Y* has developed a new-generation mobile phone. The company has planned to include the new phone on its display of new products in an industry trade fair with product specifications for public viewing. Thus, the company has planned to engage itself in an interaction with prospective customers as trade fairs (or trade shows) are, at least in some industries, important vehicles of promotion (Kerin and Cron, 1987). Moreover, as trade fairs are a form of promotion, participation in and actions during such an event are also capable of having competitive implications (Gopalakrishna and Lilien, 1995). To continue the example, assume that when the trade fair is about to open, however, the product testing team from the headquarters reports that they have discovered some major malfunctioning in the new phone. Because of this, the top company representatives present at the trade fair avenue hold an emergency meeting to discuss whether the introduction of the new phone should be postponed to the next trade fair despite the fact that such postponements are usually harmful for companies (Hendricks and Singhal, 1997). As the company representatives are in their meeting, the trade fair staff who build the company display proceed, following the original instructions they were given. As a consequence, the new phone appears on display for the trade fair attendees to see at the same time as the top company representatives debate about the faith of the (already occurred) product introduction.

Now, is it reasonable to state that the company has intentionally introduced its new-generation mobile phone in the industry trade fair? After all, the introduction occurred according to a previously established plan, thereby satisfying the criteria above: the actor (Company *Y*) had an action plan that included the product introduction in just the way it took place. In the spirit of Mele and Moser (1994), the answer would be no. Even though the company had the intention of introducing the new product in the way it eventually was introduced, the company did not have the intention present (remember, postponing the introduction was under consideration at the time of the actual occurrence of the introduction) when the introduction took place – even though all went otherwise as planned. According to Mele and Moser, an action description like this requires another condition to be satisfied in order for an action to qualify as an intentional action:

2. The actor intentionally performs an action at *t* only if at *t*, the actor has an intention that includes the action plan[44].

In other words, it does not suffice that an actor has an action plan to perform an action for it to qualify as an intentional action and that the actor has at some previous point of time intended to act according to the action plan. Additionally, for an action to qualify as an intentional action, the actor has to have the intention to carry out the action, according to the action plan, at the time when the action is actually performed[45].

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[44] The specific wording used by Mele and Moser is "*S A*-s intentionally at *t* only if at *t*, *S* has an intention, *N*, that includes action plan *P*" (1994: 52, italics in original).

[45] The original example used by Mele and Moser (1994) is adopted from Davidson (1980: 79) and goes as follows. "A climber might want to rid himself of the weight and danger of holding another man on a rope, and he might know that by loosening his hold on the rope could rid himself of the weight and

To further refine the conception of intentional action, let me slightly modify the preceding action description. As before, Company *Y* has developed a new next-generation mobile phone. The company intends to generate a significant amount of media coverage for its new phone and it knows that usually this is achieved at this trade fair by demonstrating the new features of a new phone in a big press event, i.e. by engaging in a form of "at-show impersonal promotional activities" (Gopalakrishna and Lilien, 1995: 27). Because of this the company develops a plan to demonstrate the innovativeness of its new phone in such an event. Sadly enough, the bad news from the testing team concerning the malfunctioning of the phone has not reached the company representatives at the trade fair, and the phone, indeed, malfunctions during the press event making the presenter very embarrassed. However, the industry press is accustomed to occasional glitches in new products, as 'bugs' in new products are rather commonplace in high-technology industries (see, e.g. Fimbel and Burstein, 1990), so no particular skepticism is directed towards the new phone. Nonetheless, the public embarrassment of the company representative demonstrating the phone is vividly reported in the industry press, while the facts about the new phone are reported as a minor detail in these stories. As a result, a significant amount of media coverage is generated for the new phone – as the company intended.

Now, again, we may ask is it reasonable to say that the company intentionally generated the media coverage for their new phone? After all, their new phone received significant media coverage, precisely what they wanted. In the spirit of Mele and Moser (1994), again, the answer would be no. Even though the company had an action plan that included performing the action ('generate significant media coverage for the new product'), condition one, and the company, at the time of the action, had an intention which included in the action plan, condition two. However, the main argument, following Mele and Moser, is that the company did not perform the action *in the right way* with regard to its action plan. That is, the company failed to perform the action as they originally planned, even though the end result was precisely what the company sought[46]. This line of reasoning results in the third condition a competitive action must satisfy for it to qualify as an intentional action:

3. The actor intentionally performs an action at *t* only if, at *t*, the actor suitably follows its intention-embedded action plan in performing the action[47].

In other words, it does not suffice that an actor has an action plan to perform the action and that the actor has, at the time of the actual action, intentions that include the action plan, but, in addition, the action must be performed close enough to the action plan[48] [49].

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danger. This belief and want might unnerve him as to cause him to loosen his hold [unintentionally]." (Mele and Moser, 1994: 48, bracketed addition in original)

[46] With the addition that one company representative got humiliated in the process.

[47] The specific wording used by Mele and Moser is "*S A*-s intentionally at *t* only if, at *t, S* suitably follows her intention-embedded plan *P* in *A*-ing" (1994: 52, italics in original).

[48] Mele and Moser (1994) discuss more in detail what 'close enough' could mean (and, of course, it is subject to subjective considerations), but such considerations are of no particular concern with regard to this study.

Let me consider another case[50]. Company *Z* intends to develop a new chemical compound with an exceptionally low coefficient of friction for various coating applications. Thus, the company is embarking on new product development in order to produce a product (the coating compound) with superior performance with regard to previous competing products, one of the central aims in new product development in general (Cohen, Eliashberg and Ho, 1996). Therefore, as the aim is to surpass the performance of competing products, the action (if successful) is capable of having major competitive implications, as the performance (or, more generally, quality) of a new product is usually one of the major determinants of new product success (Calantone, Schmidt and Song, 1996; Zirger and Maidique, 1990). However, to continue the example, the industry wisdom says that it takes years of experimenting and a vast number of experiments with trial and error to arrive upon such a compound. Indeed, industries engaged in developing new chemical compounds (such as the pharmaceutical industry) are generally characterized with exceptionally long lead times from the beginning of new product development to market introduction (Shah, 2004)[51]. The company, not letting this fact discourage it, develops a plan to perform laboratory experiments to develop such a compound. The first experiment results in a compound with a coefficient of friction greatly lower than any previously known compound, making the experiment a success.

Now, can we say that the company has developed the new non-stick coating compound intentionally? After all, all three prior conditions for an action to qualify as an intentional action are satisfied: the company had an action plan that included developing the compound (1); the actor had, at the time of the experiment, an intention to develop the compound (2); and the company suitably followed its intention-embedded plan to develop the compound (3). However, in the spirit of Mele and Moser (1994), the answer is, once again, no: the company did not intentionally develop the coating. This is so because success in performing the action with the first try was, as described, against all the odds. On the same grounds, one can not intentionally win the main prize in a regular lottery: the three first above-mentioned criteria can be satisfied, but actually succeeding in winning the main prize is plainly against all the odds. This line of reasoning results in the fourth condition an action must satisfy for it to qualify as an intentional action:

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[49] The original example used by Mele and Moser (1994) is adapted from Davidson (1980) and goes as follows. "A man may try to kill someone by shooting him. Suppose the killer misses his victim by a mile, but the shot stampedes a herd of wild pigs that trample the intended victim to death. (Mele and Moser, 1994: 48) Furthermore, they continue "[h]e did not, however, *intentionally* bring about the death" (ibid.: 50, italics in original).

[50] Actually, Mele and Moser consider one more case before this, but it is of no substantial importance for this thesis, even though the three variants of the case they discuss are intellectually interesting, involving litmus paper accidentally used as a concert admission slip, stunt parachuting under variable wind conditions, and playing an imaginative ball game involving an X-ray machine (1994: 52-58).

[51] Shah (2004), for instance, points out that in the pharmaceutical industry it takes, on average, some 8-12 years from patent filing to the materialization of the first sales.

4. An actor performs an action intentionally at *t* only if the route to performing the action that the actor follows in executing the action plan at *t* is, under the current circumstances of the actor, a suitably predictively reliable means of the actor performing the action at *t*[52].

In other words, it does not suffice that an actor has an action plan to perform the action, and that the actor has, at the time of the actual action, intentions that include the action plan, and that the action is performed according (or close enough) to the action plan, but in addition, it must also be probable (i.e. not 'against all odds') that the actor actually will succeed in performing the action[53].

Let me consider a final case. Company *W* has discovered (has a firm belief based on observational evidence) that a competing company has infringed its registered trademark in an exceptionally obvious and harsh way. All legal experts, both company lawyers and independent legal experts, observing the situation agree. Company *W* intends to prevent the competing company from continuing to infringe the trademark and, therefore, develops a plan to achieve this by submitting a case to the appropriate court in order to have a court ruling preventing the competing company to continue infringing. Thus, Company *W* intends to alter the prevailing competitive situation by its action, because currently the infringing competing company is (wrongly, from the perspective of Company *W*) utilizing some of the intangible resources of company *W* (cf., e.g. Hall, 1993), enabling it (similarly wrongly) to earn some of the premiums associated with the brand of Company *W* (c.f., e.g. Grossman and Shapiro, 1988). To continue the example, Company *W* acts following its plan and, as expected, the court ruling is in favor of Company *W* and the competing company is forced to discontinue infringing the trademark.

Can we say that Company *W* intentionally prevented the competing company from continuing to infringe the trademark? After all, again, all the previous criteria for intentional action are satisfied: the company had an action plan which included the prevention (1), the company had, at the time of filing the lawsuit, an intention which included the action plan (2), the company suitably followed its intention-embedded action plan (3), and it was from the beginning very likely that the company would succeed in its action (4). However, in the spirit of Mele and Moser (1994), the answer would, once again, be no: the company had no *control* over whether it would succeed or not in its action to prevent the competing company continuing the trademark infringement: the result was up to the judicial process, which, at least in principle, should not be controlled by

[52] The specific wording used by Mele and Moser is "*S A*-s intentionally at *t* only if the route to *A*-ing that *S* follows in executing her action plan, *P*, at *t* is, under *S*'s current circumstances, a suitably predictively reliable means of *S*'s *A*-ing at *t*" (1994: 60, italics in original).

[53] The original example used by Mele and Moser goes as follows. "Lisa selects a sequence of six numbers to win a fair Florida instant lottery. Upon punching her six numbers into the lottery computer, Lisa wins instantly. Did she intentionally win the lottery? We doubt that the ordinary notion of intentional action allows for such lucky intentional action." (1994: 59)

either of the disputing parties. This line of reasoning results in the fifth and the final condition an action must satisfy for it to qualify as an intentional action:

5. An actor performs an action intentionally at *t* only if the predictively reliable means of the actor performing an action at *t* depends appropriately on the actor having suitably reliable control over whether it will succeed in performing the action at *t*[54].

In other words, it is not enough that it is *statistically* probable that the actor will succeed in performing the action (in addition to the three first criteria) but, in addition, the actor must have a suitably reliable *control* over the success[55].

To recapitulate, according to the account by Mele and Moser (1994), for an action to qualify as an intentional action, the following five criteria must be satisfied: the actor *intentionally* performs an action at *t* only if:

1. at *t* the actor has an action plan that includes, or at least can suitably guide, the actor performing the action, and
2. at *t*, the actor has an intention that includes the action plan, and
3. at *t*, the actor suitably follows its intention-embedded action plan in performing the action, and
4. the route to performing the action that the actor follows in executing the action plan, at *t* is, under the current circumstances of the actor, a suitably predictively reliable means of the actor performing the action at *t*, and
5. the predictively reliable means of the actor performing an action at *t* depends appropriately on the actor having suitably reliable control over whether it will succeed in performing the action at *t*.

Let me take the discussion concerning intentionality in action thus far together. Competitive actions are practically universally viewed in prior literature as intentional actions, done for a purpose. In the preceding discussion the criteria for an action to qualify as an intentional action were reviewed according to one prominent view (Mele and Moser, 1994) on intentionality in the philosophical theory of action. Therefore, as competitive action is intentional action, an action by

[54] The specific wording used by Mele and Moser with regard to this condition augment the fourth criterion by stating that "…and the predictive reliability of that means depends appropriately of *S*'s having suitably reliable control over whether, given that she acts with *A*-ing as a goal, she succeeds in *A*-ing at *t*" (1994: 62, italics in original).

[55] The original example used by Mele and Moser goes as follows. "Mike, a normal person, is playing a game with a pair of fair dice. He will win $20 on his next roll if and only if he throws something other than "boxcars" (two sixes). Mike, wanting to win, has a simple plan: He will throw a non-boxcar roll and win the money. Mike realizes that there is a slight chance that he will roll boxcars, but this does not threaten his plan. As it happens, he throws a seven … Mike lacks a *control* over the dice required for his intentionally throwing a non-boxcar roll … This consideration supports the plausible view that Mike's throwing non-boxcars is not an intentional action" (1994: 62, italics in original)

a company, and for it to qualify as a competitive action, it must satisfy these criteria. If it does not, the action is not intentional action and, therefore, not a competitive action either[56].

However, thus far I have assumed that the notion of actor is unambiguous to interpret. But as companies are collectives comprising individual members, one essential question which may arise from time to time is: when can an action by an individual member of a collective be attributed to the collective as a singular action? In other words, under what circumstances does a member of a collective act *representing* the collective or, put differently, act *on behalf* of the collective or *participate* in collective action. Indeed, it may not be clear in all cases under which circumstances, say, the CEO of a company acts in the capacity of the CEO of the company and when in the capacity of a private individual human being (in making a certain statement, for instance). I will address this issue next.

2.3.3 Participation and Representation – The Intentions of Whom?

The question of participation and representation is concerned with the distinction between the intention of the collective and the intentions of its constitutive members. This, in turn, translates to the notions of 'participation' and 'representation'. For instance, if the CEO of a company makes a derogatory statement about a competitor of the focal company, is this an action performed by the company or is it an action performed by the CEO as an individual actor independent from the company? Or, if an employee of a company offers a bribe to a customer in order to secure a contract, is this action attributable to a company, or does the employee act as an individual actor instead? I will next address questions of this type.

To address the question of participation and representation accurately, it is rational first to turn to a formal account of collective action to review the criteria for collective action. Without further delay, collective action[57] may be formulated as follows (adapted from Tuomela, 1989):

> If a collective actor (consisting of members $M_1 \ldots M_n$) performs an action A, its members $M_1 \ldots M_k$ ($k \leq n$) must have performed component actions $C_1 \ldots C_k$ which, in turn, bring about A.

Consider, for instance, that a company (consisting of members in different roles such as top management, (other) employees, owners, etc.) makes a preannouncement of its forthcoming new product, i.e. performs a collective action through which a preannouncement about a forthcoming product is made. This action is capable of having competitive implications because such preannouncements are, among other things, likely to hurt the sales of products already in

[56] In addition, the action must also be a proper action to begin with instead of some other kind of an event (as discussed earlier).

[57] Here, the notion of 'collective action' stands for 'an intentional action performed by a *structured* collective'. Henceforth, I will follow this convention throughout the remainder of this study unless otherwise specified.

the market, as some customers delay their purchasing decision until the preannounced product is available (Sorescu, Shankar and Kushwaha, 2007). Moreover, new product preannouncements are a particularly important means of competition in industries characterized by high importance of compatibility issues (Farrell and Saloner, 1986) or, alternatively, network externalities (Dranove and Gandal, 2003; Le Nagard-Assayag and Manceau, 2001). Nonetheless, in the case of this exemplary action, according to the account of collective action above, it is necessary that the members of the company have performed such component actions (e.g. actions concerning preparing product specifications, arranging a media event, delivering a speech in that event, etc.) which, together, bring about the collective action. Even though the present account is silent about the issue, it is reasonable to assume also that the component actions may be collective actions at a sub-collective level (e.g. preparing the product specification by a team of marketing and product development personnel). Then the account applies to such collective action, too.

As the account above suggests, collective action does not require the participation of all of its members and, in fact, collective action may be performed by only one of the members of the collective actor (in the formal account: k=1) if that suffices to bring about the collective action in its entirety. Consider, for instance, a forward-looking statement made by a company in an annual industry conference. Here, the action is straightforwardly attributed to a collective (the company), but the action may require the statement to be made by only one of the members of the collective; the CEO, for instance. In other words, in this case the CEO alone makes the statement on behalf of the whole collective.

However, in the account discussed so far it is readily assumed that the actions performed by the members of the collective qualify as component actions for collective action. It is clear, however, that not all the actions carried out by, say, the employees or the managers of a company meet this qualification, even if we consider only those actions that are performed during the usual working hours on the company premises. For an action by a member of a collective to qualify as a component action for collective action, it must satisfy certain conditions from the viewpoints of both the actor and the collective. Indeed, it is necessary that the member agrees that he or she is, through his or her action, *participating* in the collective action, and, at the same time, the collective must agree that the actor, when performing the action, *represents* the collective. Unless both of these criteria are satisfied, the actor performs his or her action as a collective-independent individual, and, consequently, the action is attributed to him/herself and him/herself only. Let us discuss the issue of participation first.

Adapting from the treatment of Tuomela (1989), there are three requisites an action by a member of a collective must satisfy for it to qualify as participating in collective action (CA):

1. The member believes that performing CA is possible, and
2. The member (M_i) intends to do his part (CA_i) of CA, and
3. The member believes that:
    a. other members, in turn, do their part of CA, or
    b. CA_i alone suffices in order to perform CA

Thus, in the first place, each participating member must believe that bringing about the collective action is possible. Second, it is necessary that each participating member must perform his or her component action with an intention to bring about *CA*. Therefore, what was previously said about the intentionality of an action applies here, too. And, finally, the participating members must also believe that their efforts are not futile in that other members, too, contribute so that attaining the collective action is not undermined, or, alternatively, that no one else is required in order to bring about the collective action.

However, these criteria do not address the issue from the collective's point of view. Namely, a member of a collective may *him/herself* perceive that he or she is participating in a collective action or performing it on behalf of the collective, but the action does not qualify as a component action for collective action because the collective does not agree that the member is *representing* the collective. For the representativeness to be true, there are two additional central criteria the action must meet.

First, according to French, for an action of a member of a collective to constitute a component action of a collective action or a collective action by itself, it must be done in accordance with the intentions of the collective (1984: 40):

4. CA_i is done in accordance with the intentions of the collective.

It may be argued, however, that the notion of collective intentions (or intentions of a collective) is troublesome because of its vagueness. French, however, proceeds to clarify this concept. His terminology exhibits a slight inclination towards companies but there is no reason to believe why these principles would not apply to other kinds of (structured) collectives as well. Namely, he posits that the corporate intention is intertwined in or exhibited by the corporate policy ('general policy' or 'corporate image' in his terminology). Even though he does not offer a precise definition of such a policy, he notes that it is exhibited "as encrusted in the precedent of previous corporate actions, and its statements of purpose as recorded in its certificate of incorporation, annual reports, etc." (1984: 45). It is rather evident from the treatment of French that he perceives the internal corporate culture to be also a part of the corporate policy (1984: 48-66). This is especially evident in his articulation

> "Written statements may be indicative or they may only be window dressing. Acceptance among the corporate personnel or the higher managerial officers determines the content of the policy…" (1984: 62).

Therefore, if an employee of a company agrees with the corresponding representatives of its competitors that the company will enter a price cartel (which may be illegal in some countries), it is a collective action, performed by the employee in his capacity as a *representative* of a company and, therefore, *on behalf* of the company, if entering a price cartel is in accordance with the prevailing corporate policy of the company – *formal or informal*. Otherwise, it is an action by one

or more individual members of the company, for which the company is not responsible because the lack of its intention. It must be admitted, though, as French does, that this view clearly leaves some room for divergent interpretations (1984: 46-47). Nonetheless, the component actions for a collective action or a (singular) representative collective action must be done in accordance with the intentions of a collective for them to qualify as such actions. This view is shared by Tuomela (1989), who notes that the intentions of the participating members for their actions must be compatible with the intention of the collective for its collective actions.

However, this may not suffice, because I have thus far said nothing about the situation in which a member of a collective acts. Consider, for instance, this example. A company intends, again, to release a preannouncement about a forthcoming new product in order to build up demand for the product. Having learned about this intention, an intern in the research and development department, believing that it is beneficial for the company to spread the message as widely as possible, intends to help the company to get the message widely heard and calls a reporter in a major newspaper and tells him all the information to be included in the preannouncement and nothing else. As a result, the newspaper reports on the product in its next issue, referring to the intern at the R&D department as the source of the information.

The action by the intern in this example meets all the four criteria put forth above: the intern obviously believes that making the preannouncement is possible (criterion 1), because he proceeds and acts accordingly; he intends to do his part of the preannouncement (criterion 2), which is exhibited by his deliberate call to the reporter. Furthermore, the intern most probably believes that all the other appropriate members are doing their (perhaps more 'official') part of the preannouncement (criterion 3) because he intends just to help them, and he is confident that the action is in accordance with the intention of the company to perform the preannouncement (criterion 4), as he believes that it is intended to spread the word as widely as possible. However, it is possible, even likely, that the company does not agree that the intern, by releasing the information to the reporter, is representing the company, because, say, the company policy is not in line with parties external to the company releasing initial information about a forthcoming product without the discretion of the company itself over the information to be released and the style of doing this. Instead, it is probable that the company perceives the action by the intern as misconduct, that is, unauthorized action, something the intern is individually responsible for. In other words, if this is the case from the viewpoint of the company, the action by the intern is not attributable to the company, but only to the intern himself: the company did not perform a preannouncement and rather there was instead an undesired company-independent 'leak' of information.

Thus, referring to Tuomela (1989), a fifth criterion is called for. According to this criterion, the individual participating actor must act according to the normative setting prevailing in the situation. More precisely, the action must satisfy the rules concerning what the member, in the situation, *may* do, *ought to* do and *must not* do[58]. These rules encompass at least formally defined

[58] Actually, some authors on the philosophical logic on norms, deontic logic, ascertain that there are no other

ones, but may also include those related to the social setting in the situation (what is socially accepted in the collective, the informal norms). However, put simply, according to this criterion, the action must be performed in the right way with regard to the normative setting in the situation. Thus, the fifth criterion is:

5. CA_i is done in accordance with the normative setting in the situation.

Returning to the previous example, its description implies that the action performed by the intern does not meet the fifth criterion, and, therefore, the intern does not represent the company when he releases the information to the reporter. If, however, the intern had asked for and been granted *permission* (permissive norm, 'may') to release the information to the reporter, the fifth criterion would have been satisfied, and, therefore, the intern would have been correctly said to represent the company with his action.

In sum, these five criteria, taken together, specify the conditions which must be satisfied for the member of a collective, with his/her action, to participate in collective action (viewpoint of the member) and to represent the collective (viewpoint of the collective). Put differently, if these five criteria are satisfied, the action of a member of a collective qualifies as a collective action.

Considering the notion of intentionality thus far, I have put forth (1) five criteria an action *by a company* must satisfy for it to qualify as an intentional and, therefore, competitive action and (2) another five criteria for an action *by a member* of a company for it to qualify as an action attributable to the company as a singular collective actor.

Let me now turn my attention to the *content* nature of competitive action, that is, what are the goals of (what is intended with) competitive actions?

2.4 Competitive Action as Seeking for Competitive Advantage

Thus far, in this chapter, one main accomplishment has been establishing the criteria for an action to qualify as an intentional action. These criteria, however, are applicable to any kind of actions, competitive actions performed by companies, bodily movements performed by human beings or any other kinds of conceivable actions, even though the examples used throughout the discussion concerning intentional action above have been purposefully specific to actions by companies which are expected to have competitive implications. What, then, is the particular nature of an action by a company for it to qualify as a *competitive* action? I will address this question next.

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norms than these three norms: obligatory ('ought to do'), permitted ('may do'), and forbidden ('must not do'); see, e.g. von Wright (1951, 1963).

2.4.1 The Desire: Competitive Advantage

I previously mentioned in the review of prior conceptualizations of competitive action that competitive action is intentional action because it is done for a reason, and this is rather universally agreed upon in prior literature. But what does this 'reason' mean with regard to intentional action? Adapting from Ehring (1985), causal accounts of intentional action posit that doing an action for a reason means that an actor desires some goal, and at the same time believes that performing a particular action will contribute to the attainment of that goal[59], and, because of these, develops an intention to actually perform the action (and correspondingly, develops an action plan to carry out the action, and so on, as discussed earlier with regard to the notion of intentionality in action).

Therefore, a central driver in intentional action – competitive action or otherwise – is the fact that something is desired. What, then, is desired by a company in the case of competitive action: an action, by definition, taking place in a competitive setting?

Here we may turn to prior authors on competitive dynamics, who have in several cases outlined what is sought for with competitive actions. The definitions of competitive action reviewed above enumerate the following desires (of a company performing a competitive action)[60]:

- "…to defend or improve its (relative) competitive position/profit position/(market) share position" (e.g. Smith et al., 1991)
- "…to attract customers and outmaneuver competitors" (Chen and Miller, 1994)
- "…to the firm's acquiring its rival's market shares or reducing their anticipated returns" (e.g. Chen and Hambrick, 1995)
- "…to attract, serve and keep customers" (e.g. Miller and Chen, 1996b)
- "…to attract customers and cope with rivals" (Miller and Chen, 1996a)

Even though these delineations pave a way towards understanding what a company desires when performing a competitive action, more useful insights on the issue can be gained when examining the notion of competitive dynamics, the basic building block of which an individual competitive action is, more generally.

Prior authors on competitive dynamics discuss the general notion of competitive dynamics with regard to three coarsely-grained categories of issues.

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[59] Note that it explicitly suffices that an actor *believes* that performing the action *contributes* to the attainment of the goal. Therefore, the action does not have to result in the attainment of the goal (even though, on some occasions, it can). Nor does the action actually have to contribute to the attainment of the goal, it suffices that the actor believes that this is true.

[60] Here are taken into account only such definitions which address the question of what the company desires when it performs a competitive action. Therefore, for instance, the definition by Baum and Korn (1996), which defines competitive actions as "offensive challenges that invite competitor responses" is not taken into account because, whereas it delineates that competitive action *causes* (that is, invites) competitor responses, it is doubtful whether a company *desires* such responses (indeed, the company may, in fact, desire quite the contrary).

First, some authors conceptualize strategy *being* the repertoire (either sequentially or as an aggregate yearly profile) of competitive actions used by a company. For example, Miller and Chen state that they "view strategy as a repertoire of competitive actions" (1996b: 420). In a similar vein, Ferrier et al. note that "…researchers in the competitive dynamics stream within strategic management have developed theory and empirical methods centering on a fine-grained conceptualization of firm strategy as *competitive action*" (2002: 303, italics in original). Thus, according to this view, observing the pattern of competitive actions used by a company unfold is observing its strategy – that is, *realized* strategy (Mintzberg, 1978; Mintzberg and Waters, 1985) – being acted out.

Second, some authors view that the usage of competitive actions is related to the successfulness of a company. For example, Chen et al. posit that "[s]trategic management research suggests that the way a firm acts and responds in a market determines its ultimate organizational performance" (1992: 439). Similarly, Hambrick et al. (1996), referring to D'Aveni (1994), view that "…firm performance can be seen as an outcome of a series of competitive actions…" (Hambrick et al., 1996: 661).

Third, and most often, several authors associate competitive actions and competitive advantage in a manner that companies are seen to seek (desire) the enhancing or maintaining of competitive advantage through their use of competitive actions[61]. Indeed, Ketchen, Snow and Hoover, in their review of the literature on competitive dynamics, state that "…firms whose managers effectively orchestrate the six issues [with regard to designing and performing competitive actions] in a coherent, integrated way will gain competitive advantages over rivals that do not" (2004: 781), whereas a little earlier Young et al. (2000), referring to Porter (1991), state that "individual firm move is the basic unit with which competitive advantage is built"[62] (Young et al., 2000: 1217). Smith et al. (1991), in their seminal paper on competitive dynamics, also refer to Porter (1980) and posit that companies perform "competitive moves to achieve competitive advantage" (Smith et al., 1991: 61). Moreover, the desire for competitive advantage as the driver for competitive action has also been put forth by Chen and MacMillan (1992)[63], Young et al. (1996)[64], and Chen et al. (1992)[65].

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[61] Usually enhancing (or increasing) competitive advantage can be associated with initiative actions whereas defending it (or preventing it from decreasing) can be related to responsive actions. However, this is not to be considered as a strict rule, for two reasons. First, an initiative action (e.g. a new product introduction) may be performed because, for instance, the products of the focal company have become obsolete, and therefore the competitive position of the company has been deteriorating and the company wants to prevent its competitive position worsening any more. And second, sometimes the distinction between initiative and responsive action may be empirically in a real world situation difficult, if not possible, to make (e.g. answering the question "Why did this company introduce a new product?" unambiguously).

[62] To be precise, however, the actual term Porter uses is not 'individual move', but instead 'discrete activity': "Competitive advantage results from a firm's ability to perform the required activities at a collectively lower cost than rivals, or perform some activities in unique buyer value and hence allow the firm to command a premium price. The required mix and configuration of activities, in turn, is altered by competitive scope. The basic unit of competitive advantage, then, is the discrete activity." (1991: 102)

[63] "Firms constantly undertake offensive and defensive actions in their struggle for competitive advantage"

Now, there are three concepts associated with competitive action: 1. strategy, 2. success (performance), and 3. competitive advantage. Let me now try to resolve the mutual relationships between these concepts and competitive action.

To begin with the concept of strategy, there is no established consensus concerning the precise definition of it in the strategic management literature (see e.g. Barney and Hesterly, 2006: 4-5)[66]. For instance, according to Wheelen and Hunger, strategic management is the "set of managerial decisions and actions that determines the long-run performance of a corporation" (2006: 3). From this, it seems that strategy is something in accordance with or guided by which such decisions and actions are carried out. In a similar vein, David articulates strategic management to be "the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives" (2007: 5).

Barney and Hesterly, in turn, address the concept of strategy directly by defining it as company's "theory how to gain competitive advantages" (2006: 5). A more detailed account is provided by Johnson, Scholes and Whittington, who define strategy as "the *direction* and *scope* of an organization over the *long term*, which achieves *advantage* in a changing *environment* through its configuration of *resources and competences* with the aim of fulfilling *stakeholder* expectations (2005: 9; italics in original)[67]. Other recent definitions include that of Hitt, Ireland and Hoskisson, according to whom strategy is "an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage" (2005: 7), and that of Carpenter and Sanders (2007), who, referring to Hambrick and Fredrickson (2001, 2005), define strategy as "the central, integrated, externally oriented concept of how a firm will achieve its objectives" (Carpenter and Sanders, 2007: 8).

One might continue enumerating definitions for strategy (and for strategic management) substantially more extensively[68], but the previous definitions are rather representative. Namely, strategy is something through which a company seeks, depending on the definition of choice, fulfillment of its goals, or, more broadly, the goals or expectations of its stakeholders, competitive advantage (over its rivals) as such, competitive advantage which, in turn, is seen to lead to desirable results, or some desirable level of performance (in financial terms, for instance).

(Chen and MacMillan, 1992: 539)

[64] "…the dynamic strategy stream focuses on the relationship between competitive action and competitive advantage" (Young et al., 1996: 243)

[65] "Firms constantly undertake offensive and defensive actions in pursuit of competitive advantage…" (Chen et al., 1992: 439)

[66] It is, however, commonplace to trace the origins of the word 'strategy' to the language of ancient Greece and, more precisely, to the word 'strategos' which roughly translates to 'military chief commander' (see, e.g. Ghemawat, 2006: 2).

[67] By stakeholders, in turn, they understand individuals and collectives of individuals who are dependent on a company (or, more generally, on an organization) to obtain their own objectives and, correspondingly, on whom the company is dependent (Johnson, Scholes and Whittington, 2005: 179).

[68] For a historical review on this issue see, e.g. Bracker (1980)

Nonetheless, all the prior definitions either explicitly or implicitly seem to share the view that through strategy a company seeks to reach some ultimate goal – be it, for example, a certain level of financial performance, the attainment of the expectations of its stakeholders, or mere survival.

However, in many cases a company finds itself in a competitive setting in which it has to compete with (or, perhaps better, against) other companies in order to be able to reach its goals. In such a setting the goals of rivalrous companies are often not compatible with each other. In other words, in such a setting all the competing companies can not usually all reach their goals simultaneously[69]. For instance, if the goal of a certain company is to increase its market share[70] in a market which does not grow and for which there are also other supplying companies, the company must acquire the increase in its market share at the expense of the other companies, which, in turn, may find this harmful for them and defend themselves accordingly. Hence, in such a situation companies are likely to compete against each other for the attainment of their objectives, all of which can not be attained simultaneously[71]. Thus, a company in a competitive setting seeks the ability to be somehow better than its competitors, which, in turn, would allow it better to reach its goals. That is, it seeks competitive advantage over its rivals. Hence, it seems that little violence is done with respect to the definitions of strategy above if the notion of competitive advantage is adopted between strategy and the attainment of company's goals, since the notion of strategy is most often used in such settings in which competition is present. In addition, some of the definitions above indeed share this view explicitly. Thus, is seems that it is reasonable to view strategy as something through which a company seeks competitive advantage, which, in turn, enables it to (better) reach its objectives[72].

Furthermore, that 'something' can be, again depending on the definition of strategy of choice, resource allocations or configurations, decisions and actions, commitments, or something similar. However, as resource allocations and configurations necessitate decisions and actions (or, *are* decisions and/or actions), and as commitment essentially is a decision (decision about forthcoming action[s]), it seems fit, for present purposes, to perceive that 'something' to be decisions and actions. Hence, if the line of reasoning presented above is accepted, strategy can be viewed as decisions and actions through which a company seeks competitive advantage, which, in turn, enables it to (better) reach its goals.

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[69] In theory, however, all competing companies can achieve their goals simultaneously if their goals are not mutually exclusive. This is, no doubt, more a special case than a norm.

[70] The market share of a company in a given market is usually perceived to be the total sales volume of the company in this market divided by the total sales volume of all companies in this market.

[71] The viewpoint of organizational ecology (see, e.g. Hannan and Freeman, 1977) on competition is that it occurs because some companies depend on similar resources, which are scarce. The scarcity of the resources, in turn, causes competition over those resources to occur. For instance, some companies may depend (as for their revenue) on the same purchasing potential of a set of consumers. But, as that purchasing potential is limited in quantity (that is, scarce), the companies are bound to set themselves to compete over that purchasing potential.

[72] However, a particularly analytical account concerning the logical (in philosophical terms) relationship between competitive advantage and the attainment of the goals of a company (or, more precisely, the performance of a company) is provided by Powell (2001).

Based on the preceding discussion, it seems that the mutual relationships of the three concepts of strategy, success (performance) and competitive advantage, and, in addition, that of competitive action can be perceived as depicted in the following figure.

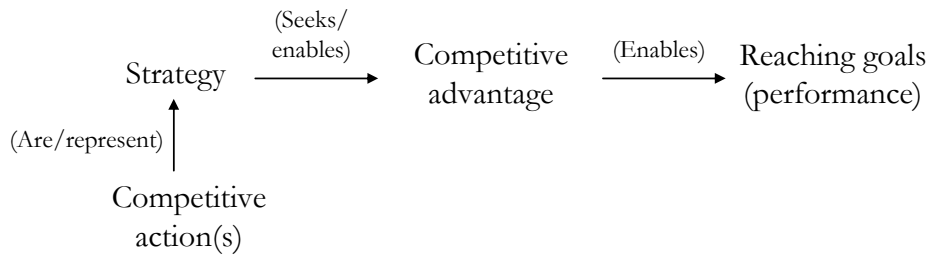

Figure 4. Relationships between competitive action, strategy, competitive advantage and success

Therefore, it seems reasonable for me to conclude that the four focal concepts in the preceding discussion fit well into this framework. First, the framework accommodates the notion that strategy can be conceptualized as the usage of competitive actions. Second, the framework also acknowledges that the aim of strategy, viewed as the usage of competitive actions, is to achieve or maintain competitive advantage, which, in turn, is seen (in a strong sense) to result in or (in a weak sense) contribute to reaching the goals (performance) of the company. Therefore, what is *primarily* desired by a company with a competitive action is achieving or maintaining competitive advantage, which, in turn, enables (in a strong sense) or may enable (in a weak sense) the company to reach its goals. When referring back to the corresponding desires enumerated by prior authors reviewed above, it seems that little if no violence is done if they are, indeed, interpreted to refer to achieving or maintaining competitive advantage in general, despite their specific vocabulary. For instance, the often mentioned desire to defend or improve competitive position or market share position, or the desire to attract customers and outmaneuver competitors, seems to fall well under the notion of competitive advantage.

Therefore, if the preceding conceptual analysis is accepted, competitive action, thus far, can be defined as follows:

> Competitive action is an intentional action[73] which is performed by a company[74] because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.

It may, however, still seem a bold move to state that the company is only required to *believe* that the action will contribute to the attainment of competitive advantage. However, recall that competitive dynamics is generally seen to be rooted in the Austrian school of economics (see,

[73] Implying that it must satisfy the criteria for intentional action developed above.

[74] Implying that the appropriate criteria for participation and representation concerning actions by members of the company must be satisfied.

e.g. Ferrier, 2001; Ferrier et al., 1999; Hambrick et al., 1996; Smith et al., 1991; Smith, Grimm, Wally and Young, 1997).

Namely, in Austrian economics (see Jacobson, 1992 for a review), the notion of 'market process' is of particular importance, as Jacobson remarks: "The notion of *market process*, in particular, tends to distinguish Austrians from non-Austrians" (1992: 785, italics in original). Indeed, von Mises (1949: 258-259) views that the market is a process (consisting of unitary voluntary actions) which signals to market participants what courses of action to take. Central notions for von Mises here are the market prices and economic calculations by market participants based on those prices as signals for favorable courses of actions. In the Misesian account the market process is "continually changing" (von Mises, 1949: 258) and a central driver of this change are the actions of entrepreneurial actors, who "*guess* what the consumers would like to have and are intent upon providing them with these things" (ibid.: 333, italics mine). Hunt (2000), interpreting von Mises (1949), summarizes that 'guess' implies that entrepreneurial actors never can know in advance the outcomes their actions (and, by the same token, the outcomes of actions by their competitors), but instead must engage in educated experimenting and ultimately observe the outcomes the market process eventually produces. Indeed, von Hayek (1945) asserts that economic actors always operate under imperfect knowledge and therefore they can not know *in advance* which courses of action (their own or those of their competitors) are profitable and which are not. It is the task of the market process to resolve this.

Thus, when looking at the preceding definition for competitive action and its notion of believing from an Austrian point of view, there seems to be a natural compatibility between the two: a company can not *know* in advance whether a particular competitive action will result in competitive advantage, but instead will perform the action if it *believes* that this would be the case. Whether an action actually produces competitive advantage or not is subsequently resolved by the market process.

Therefore, if the preceding discussion is accepted, I have been able to satisfactorily reconcile some of the (mostly terminological) disagreements in the prior conceptualizations of competitive action by denoting the attainment or maintaining of competitive advantage being the primary desire of a company performing a competitive action. Indeed, when referring back to the prior definitions, it seems that most, if not all, of them are well in line with this denotation, suggesting that the disagreements in this regard undoubtedly are more about the choice of words than deeper differences in perspectives.

However, the two other differences I mentioned earlier reflect more substantial disagreements. First, does competitive action have some particular directionality (e.g. towards external environment, or, more strictly, towards markets) as some of the prior definitions suggest, or not? And second, must competitive actions be detectable by some observers external to the company performing the action, as some prior definitions necessitate, or not? Let us next turn our attention to these aspects by addressing the issue on directionality first.

2.4.2 On The Directionality of Competitive Action

The prior conceptualizations of competitive action fall into three coarse-grained categories with regard to directionality. The least strict view adopted by Chen et al., for instance, suggests that *any*[75] action which "has the effect or perceived effect of acquiring a share of the market at the expense of its rivals or of reducing the anticipated returns to rivals" (2002: 189) is a competitive action regardless of its directionality. At the other end of the continuum is the strictest view adopted by Ferrier et al. (1999), for instance, which grants the status of competitive action only to such actions that are market-oriented or market-based. In other words, according to this view competitive actions are directed towards the market or, put differently, performed on the market. The prior authors subscribing to this view do not, however, explicitly define the market, or, perhaps better, the participants in the market. It is perhaps reasonable to assume that customers of the company exist in the market and, therefore, actions concerning, say, pricing are, according to this view, competitive actions. However, is the supply-side market (i.e. the resource market or the market of factors of production) to be included in the notion of market? If not, hiring new employees, for instance, would not qualify as a competitive action, and vice versa. In either case, it seems justified to assume that market-directionality (or market-basedness) excludes some externally directed actions which are not market-directed – like political actions such as lobbying or providing campaign funding – from being competitive actions.

In between these two ends of the continuum is the view adopted by Ferrier (2001), for instance, which posits that an action, for it to constitute as a competitive action, must be externally directed – market-directed or otherwise. Thus, according to this view all actions which are not internally directed (such as starting a new product development project or changing an organizational structure) are competitive actions, market-directed or not. Therefore, this view includes, e.g. the above-mentioned political actions to be included in competitive actions.

The following figure graphically illustrates the mutual inclusion relations between the three views.

[75] Here are considered only the aspects concerning the directionality of an action in isolation with all other considerations (e.g. the notion of intentionality) already discussed and to be discussed in this sub-chapter.

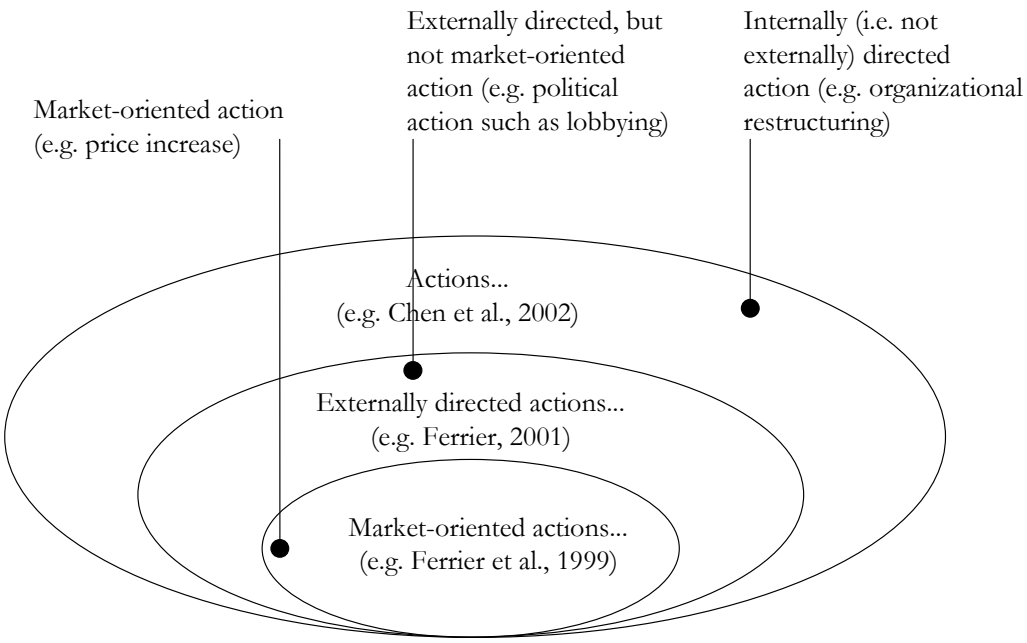

Figure 5. Different views on the directionality of competitive action

Now, which of the views would be the most feasible *in theory*? This, in turn, translates into the following question: what restrictions, if any, should be imposed for an action to qualify as a competitive action with regard to its directionality? One operational way to approach this question is to investigate the notion of competitive advantage in more detail in order to see whether it is rooted only in market-oriented issues, or more broadly, but still only in externally directed issues, or more (or most) broadly in internal *and* external issues.

To begin with, perhaps the most common view adopted in the literature of strategic management is that a company has competitive advantage if it exhibits superior performance[76] (see, e.g. Barney, 1997; Roberts, 1999)[77]. In other words, competitive advantage brings about superior performance, that is, a company outperforming its competitors (either in average or in absolute terms). Or, put differently, if a company does *not* exhibit superior performance it does not have competitive advantage[78]. Grant also supports this view by noting that "[w]hen two or more firms compete within the same market, one firm possesses a competitive advantage over its rivals when it earns (or has the potential to earn) a persistently higher rate of profit" (2005: 225) [79].

[76] But there is no agreement concerning the best measure or composite of such measures (financial or otherwise) for operationalizing performance.

[77] However, Powell provides a particularly sharp philosophical examination of the concept of competitive advantage and its related constructs and even argues that "there appears to be no falsifiable, unfalsified theory of competitive advantage, nor any competitive advantage propositions defensible without resort to ideology, dogmatism or faith" (2001: 883).

[78] As a terminological note, it is often stated that normal or average performance is the result of competitive parity and, accordingly, below-normal or below-average performance is the result of competitive disadvantage.

[79] Usually, however, persistent superior performance (in the view of Grant, operationalized with the rate of profit) has been considered as evidence of the existence of *sustained* competitive advantage –

The discussion thus far, however, does not shed any particular light on the character of competitive advantage as such. Put differently, the preceding views roughly agree on the view that competitive advantage results in (or provides the possibility for) superior or above-normal performance, but they do not say much about the nature of, or better yet, sources of competitive advantage. Or, in yet other words, the previous views discuss what competitive advantage *does* or *enables*, but do not concern themselves about what competitive advantage *is* or where it *originates* from.

David, however, provides guidance towards the nature of competitive advantage by suggesting that competitive advantage is "*anything* that a firm does especially well compared to rival firms" (2007: 8, italics mine). In addition, he proceeds by noting that the prominent perspectives on how companies can achieve and maintain competitive advantage are those of the industrial organization (see, e.g. Caves, 1980; Porter, 1981; Tirole, 1988) and the resource-based view of the firm (see, e.g. Barney, 1996; Peteraf, 1993; Wernerfelt, 1984). To be precise, David notes that these perspectives describe "how best to capture and keep competitive advantage – that is, how best to manage strategically" (2007: 9). Hitt et al. (2005) provide another equally helpful account by suggesting that a company has sustained competitive advantage when it has a value-creating strategy that is impossible or too costly for its competitors to imitate. Therefore, competitive advantage could be interpreted to be, according to this view, having a value-creating strategy which competing companies would want to imitate.

Barney and Hesterly, however, are perhaps most explicit about the nature of competitive advantage, as they suggest that a company "has a competitive advantage when it is able to create more economic value than rival firms" (2006: 12). This view is shared with Carpenter and Sanders (2007) who, to be precise, use the term 'value' instead of 'economic value'. Nonetheless, economic value, in turn, is defined by Barney and Hesterly as "the difference between the perceived benefits gained by a customer that purchases a firm's products or services and the full economic cost of these products and services" (2006: 12). Thus, they in effect state that competitive advantage *is* the ability to create more economic value than competing companies (either in relative or in absolute terms).

Now, if competitive advantage is the ability to be somehow better than competitors, or, more strictly, the ability to create more economic value than competitors, what then are the possibilities to bring about this ability?

According to Barney and Hesterly (2006), these possibilities are (1) creating more perceived customer benefits, and/or (2) having lower full economic costs. The first possibility is mainly concerned with the offerings (in broad sense) of the company and how those are perceived by its customers and prospective customers as compared to those of its competitors. In this case the

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competitive advantage which exists over a long period of time (usually several years). This observation does not, however, affect the ongoing discussion in any way.

emphasis is rather strongly on marked-oriented issues (and corresponding market-oriented/-directed actions) like marketing. However, it would not be rational to maintain that internal issues (and corresponding internal actions) have nothing to do with regard to creating more perceived customer benefits. For instance, emphasis on the quality of the internal processes, such as production and the resulting products of a company, can have an important contribution on perceived customer benefits as Hitt et al. note:

> "…quality exists when the firm's goods or services meet or exceed customer's expectations. Some evidence suggests that quality may be the most critical component in satisfying the firm's customers." (2005: 152)[80]

The second possibility, having lower economic costs has, in turn, a particular emphasis on internal issues. In fact, Barney and Hesterly (2006: 117) enumerate e.g. establishing and utilizing economies of scale, learning-curve economies and technological advantages as well as policy choices as important sources of cost advantages for companies (2006: 117).

Therefore, the means of achieving competitive advantage, as put forward by Barney and Hesterly, imply that competitive advantage can be rooted in external issues, but equally, it can arise from issues internal to companies.

This view is supported by Carpenter and Sanders, who delineate the sources of competitive advantage as follows:

> "*The field of strategic management focuses on explanations of competitive advantage* – on the reasons why companies experience above- and below-normal rates of returns and on the ways that firms can exploit the limits of perfect competition. Generally speaking, there are two primary perspectives on this issue…
>
> - The *internal perspective* focuses on firms and potential internal sources of uniqueness.
> - The *external perspective* focuses on the structure of industries and the ways in which firms can position themselves within them for competitive advantage." (2007: 19-20, italics in original)

By external perspective Carpenter and Sanders understand the positioning of a company with regard to its external environment, or, most importantly, with regard to choosing an industry or industries in which a company operates, and with regard to choosing a competitive position vis-à-vis its competitors in that industry or those industries, and, furthermore, making the conditions in that or those industries more favorable. But, do they refer by external environment to the market environment (as in 'market-oriented' or 'market-based' actions) or to the external environment of a company as a whole (as in 'externally directed' actions)? It turns out that they refer to the external environment as a whole, as they proceed to exemplify: "[i]n some countries,

[80] For evidence they refer to Crosby, DeVito and Pearson (2003).

for instance, carmakers lobby for import tariffs in order to make their domestic markets more attractive" (2007: 20).

By internal perspective, in turn, Carpenter and Sanders understand the characteristics, or more precisely, the resources of a company which enable it to perform better than its competitors.

Now, if we subscribe to the views of Barney and Hesterly (2006), and Carpenter and Sanders (2007), as Hitt et al. (2005: 7-8) and David (2007: 8-9), for example, seem to do, we arrive at the conclusion that competitive actions must not be restricted to include market-oriented or externally oriented actions alone, but instead must include internally directed (or simply internal) actions as well. Doing otherwise would result, in fact, in prohibiting companies to use certain kinds of actions as competitive actions in their pursuit of gaining and maintaining competitive advantage. However, while *in practice* it may be reasonable to focus on only certain types of actions if, for instance, a particular study is interested in only a subset of all possible competitive actions, *in theory* such a restriction seems unjustifiable.

Indeed, all the three perspectives (market-oriented, [otherwise] externally oriented, and internally oriented) are well represented in strategic management research and have been found to be associated with the competitive advantage of companies. While the market-oriented issues are perhaps intuitively evident, also other external issues such as actions directed to the political decision-making domain have been associated with competitive advantage implications for companies (Baysinger and Woodman, 1982; Birnbaum, 1985; Hillman, Zardkoohi and Bierman, 1999; Shaffer and Hillman, 2000). In a similar vein, also a number of internal issues have been associated with competitive advantage including, for example, various intangible resources like the know-how of employees and organizational culture (Hall, 1993; Rouse and Daellenbach, 1999), manufacturing (output) flexibility (Fiegenbaum and Karnani, 1991), product development competency (Helfat and Raubitschek, 2000), ability to produce high-quality products (Kroll, Wright and Heiens, 1999), and human resource management policies (Koch and McGrath, 1996).

Therefore, if one subscribes to the reasoning about the directionality of competitive action as above, the working definition for competitive action does not require any modification because it turns out that the issue of directionality does not, in theory, restrict the notion of competitive action in any way.

Thus, the working definition for competitive action remains:

> Competitive action is an intentional action which is performed by a company, because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.

Let me now consider the remaining issue concerning the definition of competitive action over which prior definitions disagree: the detectability of an action.

2.4.3 On the Detectability of Competitive Action

A central question with regard to the detectability of an action by a company most certainly is: detected *by whom*? Some prior definitions (e.g. Ferrier and Lyon, 2004) necessitate that an action, for it to qualify as a competitive action, must appear in the business press. In this case an action must be detected by an observer external to the focal company: first by a reporter representing the business press, and, subsequently, by a reader of the industry press. Other definitions, however, are less explicit in terms of who they refer to when they necessitate detectability – they just necessitate it. To whom are these definitions, in turn, referring? There are basically two possibilities: 1. to the company itself, and 2. some other detecting entity external to the company[81].

The first possibility, stating that for an action to qualify as a competitive action is must be detectable by the actor itself, does not add anything to our working definition for competitive action, because, according to it, competitive action is intentional action. Intentional action, in turn, as noted above, has certain criteria, which necessitate, among other things, that an actor must have an action plan. This includes, or at least can suitably guide, the actor performing the action, and an actor must have an intention, which, in turn, includes the action plan for an action to qualify as an intentional action. Therefore, as it is logically impossible for an actor to perform an intentional action without detecting having done so, necessitating detectability by the actor itself, indeed, does require any modifications to be made to the current working definition for competitive action.

The second possibility, in contrast, has the potential capacity to necessitate such modifications as it required that an action, for it to qualify as a competitive action, must be detectable by an external observer *in addition* to the actor itself. To begin with, this requirement is understandable when considering the empirical nature of the studies adopting this requirement. Namely, if a researcher is to study competitive actions empirically it is clearly good to be able to empirically detect such actions since it is, no doubt, challenging to study something empirically that can not or may not be detected. In fact, even though some studies do not strictly necessitate the appearance of competitive actions in the business press, virtually in all studies that contain an empirical part the actions actually are identified in general or industry-specific business publications. Therefore, the actions in these cases have been identified by one or more external observers.

While understandable from the viewpoint of the practitioners of empirical research, is, however, the prerequisite of detectability sound *in theory*? After all, some of the prior studies have not explicitly employed this prerequisite in their definitions for competitive action (even though they

[81] Recall that because a company is a structured collective actor, the members of the collective (e.g. employees) are not entities external to the company.

have in many cases empirically employed this prerequisite in practice in identifying competitive actions). Or, put differently, can there be actions which can yield competitive advantage or preserve it while remaining unnoticed by external observers and still being awarded the status of competitive actions? This question can be approached from two different perspectives.

First, according to some authors on competitive dynamics, there are competitive actions which are not detectable by external observers (essentially: competitors) and, moreover, *they may be even the most powerful of them all*. For instance, Chen and MacMillan posit that competitive actions which generate performance gains but remain unchallenged – i.e. attract no responses at all – or attract responses only after a very long period of time, allowing their initiators to enjoy performance gains for substantially long periods are "important weapons in a strategist's arsenal" (1992: 539). Or, as Chen et al. articulate: "[f]rom an initiator's point of view, a competitive advantage may be more sustainable if an action it initiates can (1) minimize the total number of competitive responses, and (2) delay the responses" (1992: 441). Smith and Grimm support this view by stating that "[a]cting firms gain advantage by undertaking actions to which competitors cannot or do not respond" (1991: 6), as does Hopkins in noting that "[t]he principal premise (of competitive dynamics) is that firms gain an advantage by taking actions where rivals do not respond or are slow to respond" (2003: 7). And indeed, if an action is undetectable by competitors, the logical conclusion is that there can be no responses for that.

This interpretation is supported by the 'awareness-motivation-capability' framework[82] put forward by Chen et al. (1992) and subsequently by Chen (1996). According to the latter these three aspects are the "drivers of competitive behavior" (Chen, 1996: 111) which, in turn, in the case of an initiative action determine the likelihood of subsequent responses. Moreover, if a competitor is not aware of an initiative action *or* is not motivated to respond *or* is not capable of responding, the response is not likely to occur. Therefore, according to this framework lowering the detectability of a competitive action (i.e. making competitors unaware of the action) is not only possible, but, in addition, highly desirable. The articulation by Chen and Miller summarizes this line of reasoning: "Competitive moves that are covert, hard to respond to, and targeted towards peripheral areas of the market will be much more likely to create 'asymmetries' and thereby yield enduring rewards" (1994: 86).

Second, and more generally, Godfrey and Hill (1995) advocate scientific realism (in contrast to scientific positivism), arguing that the 'problem of unobservables' should not hinder the development of theories which include or are based on unobservable concepts. From an empirical perspective Godfrey and Hill refer to the resource-based view (RBV) of the firm and note that "the more unobservable a value resource, the higher are the barriers to imitation, and the more sustainable will be a competitive advantage based upon that resource" (1995: 523).

[82] The framework is based, as Chen et al. (1992) remark, on the 'stimulus-response' framework from social cognition (they cite Kiesler and Lee (1982), Mervis and Rosch (1981) Taylor (1983), and Dutton and Jackson (1987)). According to this model an actor can not respond to a stimulus (in competitive dynamics: an initiative action by a competitor) unless the actor is (1) aware of the existence of the stimulus, (2) motivated to respond to the stimulus, and (3) capable of responding to the stimulus.

Thus, the case with the RBV is analogous with competitive actions: it is not only possible for a company to perform/have undetected/unobservable competitive actions/resources, but in the real world it is, in fact, highly desirable. In addition, Godfrey and Hill actually note from a theoretical perspective that "unobservable constructs are to be found at the core of a number of theories that underpin a good deal of strategic management research – including agency theory, transaction cost theory, and the resource-based view of the firm" (1995: 527).

Therefore, in the *practice* of conducting research it may be feasible to focus on only such actions that are detectable by an external observer (such as a researcher or a competitor) and call only those actions competitive actions. However, as the preceding discussion suggests, *in theory* such prerequisite is not warranted. In contrast, the line of reasoning discussed above suggests that actions that are not detectable (essentially by competitors, a particular type of external observer) may, in fact, be very powerful means of acquiring and maintaining competitive advantage and, therefore, clearly deserve the status of competitive actions. If this argumentation in favor of *not* including detectability to be incorporated in the definition of competitive action is accepted, the conclusion is that the current working definition for competitive action is also the final definition:

> Competitive action is an intentional action which is performed by a company, because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.

This is also the definition for competitive action that I will use throughout the remainder of the study.

2.5 Summary of Conceptual Development

The purpose of this chapter and, at the same time, the first part of this study has been to address the first research question: what is competitive action (and what is not).

First, prior conceptualizations seemed to agree that a competitive action is an intentional action carried out by a company. Building upon this observation, I have been able to approach the notion of competitive action from the philosophical point of view, using the philosophical theory of action as the theoretical underpinning. This approach yielded two sets of criteria for an action by a company to qualify as competitive action. The first is concerned with the notion of intentionality in general and the second is with participation and representation in collective action.

Second, prior conceptualizations, while agreeing that competitive action is intentional action, seemed to use different wordings with regard to what this intention is: what is intended with competitive action. It turned out, however, that nearly all – if not all – prior conceptualizations are well compatible with an interpretation that what a company desires with competitive action is

achieving and maintaining competitive advantage. Moreover, and perhaps more importantly, this view is very well in line with established reasoning within the literature on competitive dynamics more generally: a company intends with competitive action to enhance or defend its competitive advantage, which, in turn, has performance implications for the company. However, the philosophical theory of action provides an important additional remark here. Namely, doing an action for a reason means that an actor desires something, and, simultaneously, *believes* that performing the action will contribute to the fulfillment of that desire. Therefore, it suffices that a company only believes that performing a competitive action results in maintaining or enhancing competitive advantage; the actual outcome may or may not be compatible with this belief. However, as I noted above, even though this assertion concerning beliefs may seem a bold one, it is very well in line with Austrian economics, a central theoretical underpinning of competitive dynamics, in which it is commonly attested that a company can not know in advance what the outcomes of its action will be until the market process has produced those outcomes. Moreover, when considering the two specific sources of disagreement among prior conceptualizations, the directionality and detectability of an action for it to qualify as a competitive action, I found, in considering the mainstream view on competitive advantage in the literature on strategic management, that neither of these need restrict the notion of competitive advantage in any way.

Now, taking the central findings of this chapter together, I present the following figure to illustrate these.

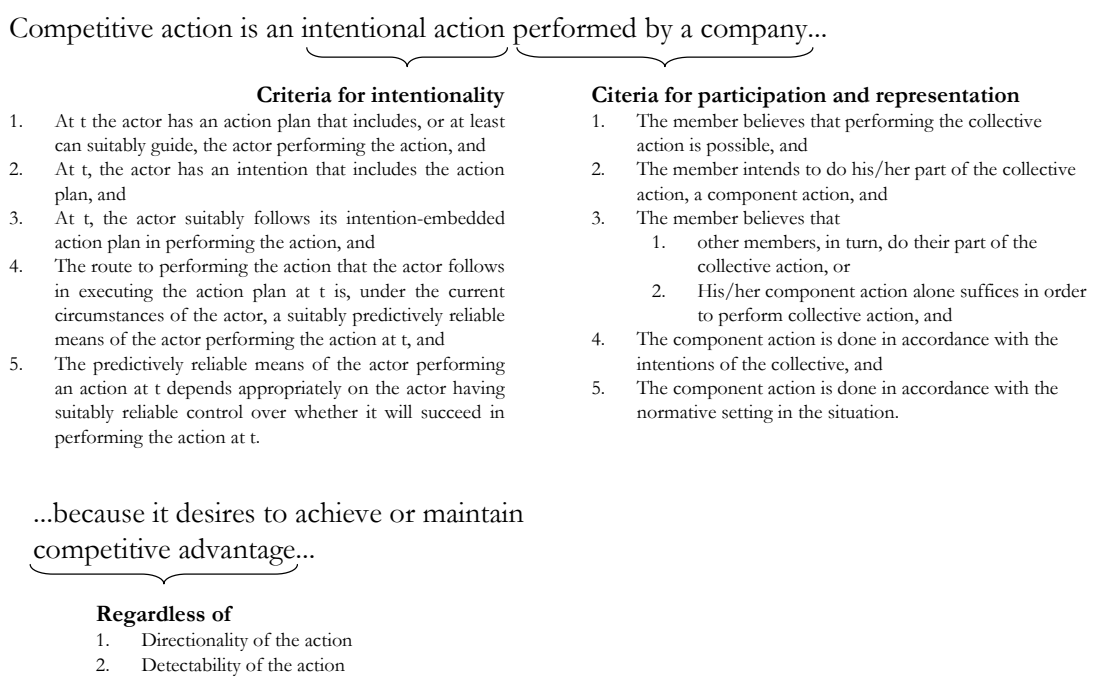

Figure 6. Summary of conceptual development

The summary of the conceptual development depicted in the figure above does not, of course, suggest that the operational definition of competitive action, as developed in this section of the

study, should always and on every occasion contain the criteria or intentionality, for instance, fully explicated. Nonetheless, it should contain the notion of intentionality to explicate that competitive action really *is* intentional and, therefore, what applies to intentional action in general also applies to competitive action in particular. In other words, and put simply, while an accidental action by a company (e.g. an unintentional information leak) turns out to have substantial positive competitive implications for a company, it does not qualify as a competitive action because the intention of the company was not involved: the action was not done intentionally, for a purpose. The same applies to the criteria of participation and representation, and to the issues of directionality and detectability.

Therefore, the definition developed through the discussion in this section of the study, and one which will be used throughout the remainder of the study, unless otherwise specified, is:

> Competitive action is an intentional action which is performed by a company, because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.

Now, it is possible that a particular question arises with regard to the preceding conceptual development. Namely, why devote an entire part of this study and a substantial amount of ink for conceptual examination alone? There are a number of reasons for this.

First, the extent of the conceptual development is justified by the rather conceptual nature of this study: the focal concept, that of competitive action, must be justifiably defined since the remainder of the study relies on this definition to a great extent. Second, as this study draws from philosophical literature (namely, the philosophical theory of action), conceptual analysis is taken quite seriously and thus discussed in length. Moreover, and third, the preceding conceptual development is not merely about bringing about a single definition, but in addition it is about offering perspectives on competitive action which have not been discussed in the prior literature. For example, to my best knowledge no prior account of competitive action has contemplated the notions of intentionality or participation/representation in any serious manner; aspects which, after all, are rather essential for the very concept of competitive action, especially when determining which actions are *not* competitive actions.

Thus, I believe, the admittedly lengthy conceptual examination is capable of contributing to future research on competitive dynamics by not only putting forward a theoretically derived definition for competitive action, but, additionally and essentially, by discussing the nature of competitive action rather extensively from multiple points of view.

Let me now, equipped with a conceptual understanding of competitive action, turn my attention to typological development: to examine and discuss the variety of different types of competitive actions.

PART TWO

TYPOLOGICAL DEVELOPMENT

3 THE VARIETY OF COMPETITIVE ACTIONS: PRIOR ACCOUNTS

The prior studies on competitive dynamics which have put forward accounts concerning the variety[83] of different competitive actions can be roughly divided into two broad categories: (1) those studies which have studied the U.S. domestic airline industry (e.g. Chen and Hambrick, 1995; Chen and MacMillan, 1992; Chen and Miller, 1994; Miller and Chen, 1994, 1996b), and (2) those studies that have not (e.g. Chattopadhyay, Glick and Huber, 2001; Ferrier et al., 1999; Hopkins, 2003). Categorizing the studies in this way is meaningful, for two reasons. First, the airline-focused studies form a loose cluster of studies with regard to the nature of the data employed, which is in most cases derived from *Aviation Daily*, an industry-specific publication. And second, the varieties of competitive actions identified in these studies, the main concern in this sub-chapter, are to a certain degree similar across studies (although there is some variation from study to study). Thus, the airline-focused studies form a rather distinct group meaningfully when compared to all the other studies on competitive dynamics which have put forward accounts concerning the variety of different competitive actions.

Next, in order to gain an understanding about the varieties of competitive actions put forward in prior studies thus far, I will review studies representing each of these two broad categories in chronological order according to their year of publication. Let me first consider the set of studies that have been conducted in the context of the U.S. domestic airline industry. Three major concerns below will be: (1) whether or not the action categories put forward and used in a study are fully explicated (thus enabling the reader to actually see and study the categories), (2) whether

[83] The word 'variety' is used here instead of 'typology' on purpose, since it is probable that some of the prior authors would not agree that they have put forward a proper *typology* of competitive actions in their work. Instead, they could well argue that their treatment has been *taxonomic* (that is, action types or categories emerging from the available data) by its nature.

or not the categories are industry-invariant (thus being applicable in different industry settings), and (3) whether or not the categories have a theoretical foundation (thus being theoretically supported and, therefore, typologically meaningful).

3.1 Studies in the Context of the U.S. Domestic Airline Industry

In their seminal article on competitive dynamics, Smith et al. (1991), examining the major airlines with annual revenue over $100 million from January 1979 to December 1986, do not explicitly provide a full catalogue of the competitive action types they have identified, but instead exemplify "new product offerings", "mergers", "new hub creations", "price cuts", "new promotional campaigns", and "joint advertising efforts" as such types. However, they note that in total they had 16 different types (i.e. 10 other categories in addition to the six explicit examples provided). It is evident that their action types include both industry-specific (e.g. "new hub creations") and industry-invariant (e.g. "price cuts") actions. The authors do not ground their categorical system in any theoretical framework or external reference.

Chen et al. (1992) have an identical company sample and the period of study as Smith et al. (1991) above. Moreover, Chen et al. (1992) they have also employed 16 different types of actions, which, however, they do not explicate, but instead refer to Levine (1987) as the source of the action types. Nonetheless, they provide "merger and acquisition", "price changes", "promotion", "expansion into a new market", and "service improvement" as such actions. Therefore, the examples encompass only industry-invariant actions, but the nature of the non-exemplified 11 action types remains unclear.

Chen and MacMillan (1992), again, have the same company sample and time period as the two prior studies, but have a different number of action types – 13 – which, furthermore, are explicated. The types are not, for reasons of space, enumerated fully here but can be found in Appendix 1 However, their catalogue includes both industry-specific (e.g. "feeder alliance with a commuter airline") and industry-invariant (e.g. "price cut") actions. Even though the full catalogue is presented, the authors do not ground the categories in any theoretical framework or external reference.

The same company sample and time period was also used by Miller and Chen (1994), but with a different number of competitive action types, totalling 21. The types are rooted on the one hand on the 'strategic-content research' by Hatten Schendel and Cooper (1977), Khandwalla (1981), Porter (1980, 1985), and Scherer (1980), and on the other hand on the airline-specific study of Levine (1987). However, the authors do not explicitly demonstrate the link between those references and the resulting categorical system. Nonetheless, the categories include both industry-specific (e.g. "cooperation with another airline") and industry-invariant (e.g. "price increase") actions. Again, the full catalogue of actions can be found in Appendix 1. The subsequent studies by Miller and Chen (1996a, 1996b) and by Hambrick et al. (1996) are most

likely identical with respect to all these aspects, even though the categories are not explicated in these studies.

The study of Chen and Miller (1994) does not differ in terms of the time period studied either, but employs a different number of action types than prior studies. The number of different action types is 14 and these are also explicated. The action types are not founded in any particular theoretical framework, but Chen and Miller explicate that such types "were deemed by prior researchers to be the major modes of competition in the US domestic airline industry" (1994: 91). The prior researchers they refer to are Chen et al. (1992) and Levine (1987). As in the case of several prior studies, the action types include both industry-invariant (e.g. "promotion") and industry-specific (e.g. "increase in commission rate for travel agents") actions. This catalogue was also used with slight modifications to the precise wordings by Chen et al. (2002). Both these full catalogues of actions can be found in Appendix 1.

An identical research setting was also used by Chen and Hambrick (1995), but, again, their enumeration of different types of competitive action differs from previous studies: the number of different action types is 17, including both industry-specific (e.g. "feeder alliance with a commuter airline") and industry-invariant (e.g. "merger and acquisition") types. The types do not have grounds in prior literature or any theoretical framework. Again, the full catalogue of actions can be found in Appendix 1.

The following table summarizes the above-discussed prior accounts on the variety of competitive actions in the context of the U.S. domestic airline industry[84] [85].

[84] To be precise, the set of studies examining the competitive dynamics in the context of the U.S. domestic airline industry also includes such studies that have employed binary sort of categorization of different competitive actions. Most often this distinction has been between initiative and responsive actions (Pegels et al., 2000; Smith et al., 1997), but Shaffer, Quasney and Grimm (2000) have used market and nonmarket actions as polar categories in their study.

[85] The table does not contain accounts with a binary approach.

Table 2. Prior accounts on the variety of competitive actions: The context of the U.S. domestic airline industry

Study	Categories of competitive actions	All categories explicitly presented	Industry-invariant actions	Industry-specific actions	Grounds/ source for categories
Smith et al. (1991)	16	No	*	*	None
Chen et al. (1992)	16	No	*		Levine (1987)
Chen and MacMillan (1992)	13	Yes	*	*	None
Miller and Chen (1994)	21	Yes	*	*	Hatten et al. (1977), Khandwalla (1981), Porter, (1980, 1985), Levine (1987)
Chen and Miller (1994)	14	Yes	*	*	Chen et al. (1992), Levine (1987)
Chen and Hambrick (1995)	17	Yes	*	*	None
Miller and Chen (1996a)	21	No	*	*	Hatten et al. (1977), Khandwalla (1981), Porter (1980, 1985), Levine (1987)
Miller and Chen (1996b)	21	No	*	*	Miller and Chen (1994)
Hambrick et al. (1996)	21	No	*	*	None
Chen et al. (2002)	14	Yes	*	*	None

Even though Table 2 above provides important observations to be made with regard to the three major concerns concerning prior accounts on the variety of competitive actions, let me postpone this discussion until the other group of studies is reviewed, and therefore turn my attention now to those studies.

3.2 Studies in Other Contexts

To begin with, Oliva et al. (1988), in their conceptual article building upon catastrophe theory, exemplify five different competitive actions, which are, as Appendix 2 exhibits, all industry-invariant by their nature[86]. When they provide the action types, they refer to Fruhan (1972), Hall (1980), Morrison and Lee (1979), Oliva, Day and DeSarbo (1987), Porter (1985), and Rao and Gutenberg (1979), but they do not articulate any further the link between their sources and the presented categories of competitive actions.

Next, Young et al. (1996) have studied the competitive dynamics in the setting of the U.S. software industry, using three different competitive actions: product introductions, product announcements, and marketing/promotion campaigns. They justify their selection by noting that these actions are "typical strategic thrusts that companies use to seize the initiative in their markets" (1996: 248), and provide references to D'Aveni (1994), Porter (1980), and Schomburg, Grimm and Smith (1994). However, they do not explicate the precise link between the sources and their categories. Nonetheless, an identical catalogue was also used by Young et al. (2000) with the same references.

Ferrier et al. (1999), in turn, have studied competitive dynamics in multiple industries (totaling altogether 41 industries), using a catalogue of six different actions all of which are industry-invariant. As to the action types, they provide a reference to Young et al. (1996), but it seems that Ferrier et al. refer here to the actual process of categorizing actions to the predetermined categories rather than the formation of the categories themselves, as they articulate "[t]his categorization approach is consistent with the approach used by Young and colleagues" (1999: 378). Thus, it seems that there is no theoretical foundation in the categories used by Ferrier et al.

Kotha, Rindova and Rothamel (2001), in turn, have investigated the competitive activity of U.S.-based Internet companies and included in their measure of competitive activity only new product and new product feature announcements. Additionally they also included in their study announcements of partnering agreements but such actions reflect another construct distinct from competitive activity, that is, cooperative activity. They justify focusing on new product and new product feature announcements by noting that earlier Pardue, Higgins and Biggart (2000) have demonstrated that performing such actions has a positive relationship with the market value of a company, thus making their two action categories competitively relevant. Hence, they justify the use of these particular two actions in the light of prior literature.

Ferrier (2001), in turn, in his multi-industry study (16 industries) of the drivers and consequences of competitive attacks, has included six different actions in the catalogue of competitive actions.

[86] In this group of studies, with one exception, all the studies have articulated the full catalogue of actions types, and therefore to avoid repetition, this is not henceforth stated in the text. The catalogues are exhibited in Appendix 2.

Even though he has not grounded the categories in any prior literature or other theoretical framework, he does note that his categorization yields a high value, and therefore a high degree of reliability in the reliability index of Perrault and Leigh (1989)[87]. Subsequently, practically an identical catalogue was used by Ferrier and Lee (2002), and, furthermore, a nearly identical catalogue with minor modifications was also used by Ferrier et al. (2002), and, identical to this one, by Lyon and Ferrier (Ferrier and Lyon, 2004; Lyon and Ferrier, 2002). In both of the two latter cases the authors note that either the categories are essentially the same as those of some prior studies (Ferrier et al., 2002), or consistent with them (Lyon and Ferrier, 2002). Furthermore, Lyon and Ferrier posit, referring to Covin and Slevin (1986), that their catalogue of action categories is "consistent with the view within corporate entrepreneurship that business strategy involves a firm's collection of competitive tactics that includes, *among other things*, new products, service, warrantees, price policy, *etc.*" (Lyon and Ferrier 2002: 457, italics mine). Thus, some authors using the categories originally put forward by Ferrier (2001) have acknowledged that prior research makes the use of such categories justified, even though originally the categories were not theoretically derived.

Hopkins (2003), in his study, examines only responsive actions but has employed a catalogue of 12 different types of such actions. He does not, however, ground these categories in any prior literature or other theoretical framework.

Boyd and Bresser (2004b) have employed a categorical scheme encompassing nine different types of competitive actions, six of which are derived from prior research on competitive dynamics. Concerning these six action types, they refer to Ferrier et al. (1999). Of the nine actions, seven are context-invariant whereas the remaining two are specific to the retail industry context (actions concerning "retail outlet range" and "retail outlet format"; Boyd and Bresser, 2004b: 20). Boyd and Bresser argue that their categorical system is rather extensive by articulating that it

> "…was validated by comparing a full list of articles mentioning the sample companies with a list of articles filtered by the coding scheme for three randomly chosen months during our study period. No *relevant* actions were missed by the coding scheme." (2004b: 20, italics mine)

This articulation, in its strict reading, suggests that some actions may have been missed by their coding scheme, but those actions were considered irrelevant – either in general or with regard to the specific purpose of their study. Nonetheless, this catalogue of actions was also used by Boyd and Bresser in another study in the same industry context (2004a).

[87] The reliability index of Perrault and Leigh measures the inter-coder reliability of judgments when qualitative data is coded into categories in a nominal scale. The values of the index range from 0 to 1. Perrault and Leigh suggest that a value over 0.8 indicates acceptable inter-coder reliability, whereas a value over 0.9, correspondingly, designates high reliability. The measure does not, however, concern itself with the *validity* of the categories for the research task at hand in any way (even though categories very disconnected from the nature of the data to be coded is likely to result in low inter-coder reliability as reasonable and consistent judgments become more difficult).

The catalogue of competitive actions constructed and used by Offstein and Gnyawali (2005a) is a noteworthy exception when comparing to all other catalogues that exist to date to my best knowledge. First and foremost, the number of actions is substantially larger, totaling 69 different types. Second, as a technical consideration, the catalogue is arranged in a hierarchical manner based on the nature of the actions. And third, the catalogue is based, while not on a theoretical framework or prior literature, on the comprehensive joint development effort by the researchers and practicing managers in the industry under examination: the U.S. pharmaceutical industry. However, they do not provide a full catalogue of the action types, but are content with supplying a sample of 45 (of 69) actions which contain both industry-specific (e.g. "FDA filing")[88] and industry-invariant actions (e.g. "price increase"). This categorization has also been used by Offstein and Gnyawali in another paper (2005b) in which they explicate a sample of 32 categories (containing no new categories beyond the prior sample of 45).

The following table now summarizes the above-discussed prior accounts of the variety of competitive actions in contexts other than the U.S. domestic airline industry[89].

Table 3. Prior accounts of the variety of competitive actions: Contexts other than the U.S. domestic airline industry[90]

Study	Categories of competitive actions	All categories explicitly presented	Industry-invariant actions	Industry-specific actions	Grounds/source for categories
Oliva et al. (1988)	5	Yes	*		Fruhan (1972), Hall (1980), Morrison and Lee (1979), Oliva et al. (1987), Porter (1985), Rao and Rutenberg (1979)
Baum and Korn (1996, 1999)	2	Yes	*		Caves and Porter (1977), Miller and Chen (1994), Scherer and Ross (1990), Tirole (1988)
Young et al. (1996), Young et al. (2000)	3	Yes	*		D'Aveni (1994), Porter (1980), Schomburg et al. (1994).

(Table continues on the next page)

[88] FDA stands for the "Food and Drug Administration", the U.S. governmental regulatory agency, which, among other things, regulates the sales of pharmaceuticals in the USA.

[89] To be precise, as with the case of those studies conducted in the context of the U.S. domestic airline industry, also this set of studies does contain binary approaches. Here, too, some studies have only distinguished between initiative and responsive actions (e.g. Pegels and Song, 2000) without further interest in the more detailed nature of the actions. Other binary approaches include the division between market entries and market exits (Baum and Korn, 1996) and between external and internal actions (Chattopadhyay et al., 2001).

[90] The table does not contain accounts with a binary approach.

(Table continues from the previous page)

Ferrier et al. (1999)	6	Yes	*		None
Kotha et al. (2001)	2	Yes	*		Pardue et al. (2000)
Ferrier (2001)	6	Yes	*		None
Ferrier et al. (2002), Ferrier and Lyon (2004)	6	Yes	*		Ferrier (2001), Ferrier et al. (1999)
Lyon and Ferrier (2002)	6	Yes	*		Chen et al. (1992), Ferrier et al. (1999) , Young et al. (1996)
Hopkins (2003)	12	Yes	*		None
Boyd and Bresser (2004a, 2004b)	9	Yes	*	*	Ferrier et al. (1999)
Offstein and Gnyawali (2005a, 2005b)	69	No	*	*	Joint development with industry executives

Let me now turn to discuss the central observations of this review (essentially Tables 2 and 3 above) with regard to the three major concerns of the review as outlined in the beginning of this chapter.

Three major concerns below will be (1) whether or not the action categories put forward and used in a study are fully explicated (thus enabling the reader to actually see and study the categories), (2) whether or not the categories are industry-invariant (thus being applicable in different industry settings), and (3) whether or not the categories have a theoretical foundation (thus being theoretically supported and, therefore, typologically meaningful).

3.3 Deficiencies in Prior Accounts

As the prior review of the accounts on the variety of competitive actions in both contexts suggests (Tables 2 and 3 above), all the accounts suffer from one or more of the following deficiencies which derive from the three major concerns of the review.

Types of actions not rigorously theoretically derived. Generally speaking, there are two primary classificatory approaches which are widely used in the research on strategic management (or perhaps in any research, for that matter): typological and taxonomic approaches. Even though these approaches or the corresponding constructs are often used synonymously, and moreover

sometimes in their reverse meanings[91], there is a rather universally recognized distinction between the two.

To begin with, Pugh, Hickson and Hinings (1969) have made a fairly clear distinction between typology and taxonomy. According to them, taxonomy is classification which is based on properties (in their terminology 'dimensions') of research subjects which are empirically derived from the classified subjects. Furthermore, they suggest that taxonomy is a multidimensional classification, which, in turn, means that the classification into taxa[92] is carried out based on numerous observed properties (in contrast to one property alone) of the classified subjects. A prime example of a taxonomy is the taxonomy for categorizing plants and animals (see, e.g. de Queiroz and Gauthier (1992) for a review)[93] in biology. In the discussion of Pugh, et al. (1969), typology, on the other hand, is classification which is based upon *a priori* lists of possible categories, which, in turn, implies theoretically (or, in some cases, intuitively) derived categories prior to the actual act of classification.

This distinction between typology and taxonomy is supported by McKelvey (1975) who approaches it with two concepts: a 'classificatory type concept' and an 'ideal type concept'. He associates the classificatory type concept with taxonomy and views it as an 'either-or notion' which is used to classify empirically gathered data. In contrast, the ideal type concept is associated with typologies, and may be used primarily for theory generation, with only a modest anticipation that empirical studies would find research subjects completely meeting the criteria of ideality. Therefore, McKelvey supports the view, according to which taxonomy is empirically derived classification, whereas typology is theoretically (or, in some cases, intuitively) derived classification. This view is amplified in his subsequent work (McKelvey, 1978).

Furthermore, this view is shared with Pinder and Moore, who have reserved the term 'typology' to designate "a priori classification schemes" (1979: 100), whereas they use the term 'taxonomy' to refer to "empirically derived, multivariate classification schemes" (ibid.). This view also gains support from Hambrick (1984), Rich (1992), Sanchez (1993) and Miller (1996).

Taken together, it seems that the following conclusions may be drawn. First, it is relatively agreed upon that a typology is a classification system which has its foundations in existing theory (or, sometimes, intuition) concerning the phenomena under observation. In other words, the categories in the system are drawn from existing theory and are basically 'ideal types' with only a modest anticipation that empirical studies will exhibit research subjects that meet the criteria of ideality completely. And second, a taxonomy is a classification system which is drawn from empirical data. In other words, the categories in a taxonomic system emerge from the empirical data under observation.

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[91] See, e.g. McKelvey (1975) for a brief review.

[92] 'Taxa' is plural of 'taxon', which, in turn, is a taxonomic group, i.e. a category in a taxonomy.

[93] However, the taxonomy of plants and animals is not 'carved in stone'. Instead, there are a number of approaches as to how that categorization could be further developed (see, e.g. Wiens, 1999)

Now, it seems that all the catalogues of competitive actions reviewed above are typologies: they are constructed *prior to* gathering the data which is to be categorized. Or at least no prior author has explicitly stated that the categories in any study were allowed to emerge from the data under observation, thus making the categories taxonomic by their nature. Moreover, the types of competitive actions, the categories, enumerated by the catalogues are more or less ideal by their nature. This is exhibited, for instance, by the inter-coder agreement rates presented by most studies, which imply that it is expected that some observed actions are open to interpretation, that is, some or perhaps all of the empirically observed actions are not very close to the ideal types specified by the (ideal) categories. Thus, it seems rather justified to call prior accounts on the varieties of competitive actions typologies.

However, most of the prior typologies are not rigorously based on existing theory or drawn from that. In this respect the prior studies fall into four broad categories. First, some of the studies do not base the types of actions on anything; instead, the types are only declared. The articulation by Chen and MacMillan is representative:

> "The total data set consisted of 856 actions, 103 of which provoked at least one response, and 203 responses … The first author and three doctoral students in the field of strategy then classified all the actions and responses into 13 generic types presented in Table 1." (1992: 552)

The table in this exemplary study then lists the 13 action types, without providing references to prior literature or presenting other information concerning the origins of the types or categories.

Second, some of the studies do refer to prior literature, but these studies do not explicitly demonstrate the link between that literature and the resultant action types. The articulation by Young, Smith and Grimm (Young et al., 1996) is representative:

> "We coded all cited moves of product introduction, product announcements, and marketing/promotion campaigns, typical strategic thrusts that companies use to seize the initiative in their markets (e.g., see D'Aveni 1994: 279; Porter: 1980: 17, 76; Schomburg, Grimm, and Smith 1994). Our method identified…" (1996: 248)

Therefore, in this case the provided references indicate that the action types are most likely influenced by prior literature, but it is not made explicit how.

Third, some of the studies refer to prior literature in the competitive dynamics research tradition itself, noting that the categories are identical to or in line with the categories used in prior studies. Here, the articulation by Lyon and Ferrier is representative:

> "Using structured content analysis (Jauch *et al.*, 1980), we categorized the competitive actions of each firm into six *specific* action categories (i.e., pricing actions, marketing actions, new product actions, capacity-related actions, service actions, and overt signaling

> actions) … This procedure and resultant action categories are consistent with that used in previous competitive dynamics research (Chen *et al.*, 1992; Ferrier *et al.*, 1999; Young *et al.*, 1996)…" (2002: 457, italics and the section parentheses in original)

Fourth, and finally, some of the studies, namely those by Offstein and Gnyawali (2005a, 2005b), base their categories on joint development with executives representing the industry under examination. Indeed, Offstein and Gnyawali note:

> "First, we used pharmaceutical functional managers and executives to devise an exhaustive and comprehensive list of competitive actions relevant to only to the US pharmaceutical industry. Second, we captured both externally directed (e.g. introducing a new product in the market) and internally targeted (e.g. training and HR initiatives) actions … Inputs from these senior managers were fused with our knowledge of the pharmaceutical industry to arrive at a listing of competitive actions. This list, along with our coding approach, was sent back to the managers for further refinement. These efforts resulted into 69 separate, independent, and exclusive types of competitive actions and their respective definitions as they relate solely to the US pharmaceutical industry." (2005b: 343).

This approach, one might argue, is possibly closest to rigor development of a typology of competitive actions, as evidently the action types are constructed and selected with particular effort and care, even though the categories are not strictly drawn from existing theory. However, the typology by Offstein and Gnyawali (2005a, 2005b) is subject to the two next types of deficiencies, as some of the action types are industry-specific, and, moreover, as the action types are not completely explicated.

Nonetheless, I argue that a proper typology of competitive actions should be rigorously theoretically developed for (at least) two reasons. First, having a solid theoretical basis for the typology ensures (even though there may be discussion concerning what this theoretical basis should be) that the action types are theoretically valid, in that they cover different varieties of competitive behavior which have already been theoretically established. And second, rigorous and explicit theoretical development of the typology allows the reader to see the origins of the categories, and thereby evaluate the soundness of the resulting typology.

Industry-specificity. Industry-specificity of the action types is troublesome particularly with regard to commensurability across different studies. First, if the action types of one study are specific (either completely or to some other degree) to a certain industry, subsequent studies in other industry contexts are unable to use some or any of the action types used in that study (for instance, if a particular study was to be replicated in the context of another industry or several other industries). For instance, "(the introduction of a) ticket purchasing requirement"[94] (Miller

[94] Originally, the action type is worded "ticket purchasing requirement" without "the introduction of a".

and Chen, 1994: 21) or "(the introduction of a) frequent flyer program"[95] (ibid.) do not make sense in such industries in which tickets are not purchased or (frequent) flying does not take place. The same argument holds for actions like "FDA filing" and "discovery of a new molecule" (Offstein and Gnyawali, 2005a: 220), as some, or indeed most industries are not dependent on FDA approvals or concerned with discovering new molecules. Industry-specificity, therefore, is likely to inhibit the diffusion and widespread use of any typology of competitive actions which contains industry-specific actions. Second, industry-specific action types also impede the comparability of results across studies, as the action types may not be mutually commensurate. For instance, it is not straightforwardly clear whether or how "discovering new application of existing drug" (Offstein and Gnyawali, 2005a: 220) would correspond with "route entry" (Miller and Chen, 1994: 21), or whether or how "(introduction of a) ticket purchasing requirement" (Miller and Chen, 1994: 21) would correspond with "changing classification of product – declassifying a drug from prescriptive to over-the-counter (OTC) status, or vice versa" (Offstein and Gnyawali, 2005a: 220).

Thus, I argue, a typology of competitive actions, for it to be usable in different contexts and in order to enable comparisons to be made across industries, must not contain industry-specific action types.

Types of actions not (completely) explicated. While a technical consideration, the fact that some of the studies reviewed above did not explicate some or any of the action types they used is also harmful for the development of the study of competitive dynamics. Indeed, it is, of course, impossible to utilize a typology used in a particular study in subsequent studies if some or, even worse, all the action types remain unknown. Therefore, a typology of competitive actions, for it to be useful for subsequent research on competitive dynamics, must, of course, enumerate all the categories explicitly.

Small number of actions. Finally, and rather intuitively, it is doubtful whether the richness and diversity of competitive managerial decision-making can be captured with two, three, six, or even 21 different types of competitive actions. In this sense, the catalogue by Offstein and Gnyawali (2005a, 2005b) is a notable exception, encompassing 69 different types, but, as noted above, it suffers from industry-specificity and not explicating the full catalogue.

Having said this, I will devote the next chapter of this study to developing a typology of competitive actions which is intended to address all the deficiencies with regard to prior typologies as just discussed. In other words, the typology I will put forward below is very explicitly based on prior theory, and, therefore, is very rigorous with regard to the first issue discussed above, the theoretical derivation of the typology. The theoretical premises are: 1. the philosophical theory of action, and 2. the general theory of competition (sometimes also labelled as the resource-advantage theory of competition). As both of the theoretical premises are general (implying here industry-invariance), the typology will not contain any industry-specific types of

[95] Originally, the action type is worded "frequent flyer program" without "the introduction of a".

competitive actions, and, therefore it can be used in any industry context, the second issue discussed above. The typology to be developed below will also address the two other issues by explicating all the categories very explicitly and having a total of 64 different action types.

4 THE VARIETY OF COMPETITIVE ACTIONS: CONSTRUCTING THE TYPOLOGY

In this chapter I will construct the typology of competitive actions to be proposed in this study. As noted previously, this is done rather straightforwardly by integrating the theoretical premises to be discussed below: the philosophical theory of actions and the general theory of competition (or, the resource-advantage theory of competition). While the philosophical theory of action is in this regard rather straightforward to apply (as it readily enumerates logically derived categories of elementary actions), the justification of selecting the general theory of competition is discussed in more length comparing this theoretical perspective to alternative theories of competition. However, let me turn my attention to the philosophical theory of action first.

4.1 First Premise: Elementary Actions

To begin with, recall that competitive action is, as discussed in length above, intentional action. Performing an intentional action, in turn, was stated to designate that an actor desires some goal, and, at the same time, believes that performing the action will contribute to the attainment of that goal, and, because of these, the actor develops an intention to actually perform the action (and correspondingly, develops an action plan to carry out the action, and so on, as discussed earlier with regard to intentionality in action).

In the context of competitive action as intentional action it was said that a company desires to achieve or maintain competitive advantage, and, at the same time, believes that performing a particular competitive action will contribute to achieving or maintaining competitive advantage.

However, in order to start to develop a theoretically derived typology of competitive actions using the philosophical theory of action as one theoretical premise, it is necessary also to examine *how* an actor may act in various situations. In other words, it is necessary to distinguish between qualitatively different *elementary action* types. In order to do that, I introduce another concept, state of affairs *p*, with regard to which the actor may have a preference. To put this differently, competitive action, as intentional action, always occurs in a certain situation (*p*), and, moreover, the properties of this situation will determine how a (rational) actor will act.

To illustrate this, consider two different situations, in both of which the actor desires to achieve or maintain competitive advantage (differences in descriptions underlined for clarity):

1. The company has been developing a new product (say, a mobile phone) with several innovative features for two years. The new product is not yet in the market, but it has recently completed its final pre-launch tests. The tests have demonstrated that the product has <u>no</u> defects, and therefore the test team suggests that it should be introduced to the market.
2. The company has been developing a new product (say, a mobile phone) with several innovative features for two years. The new product is not yet in the market, but it has recently completed its final pre-launch tests. The tests have demonstrated that the product has <u>several major</u> defects, and therefore the test team suggests that it should <u>not</u> be introduced to the market.

In both of the two situations the competitive action that the company might consider is to introduce the new product to the market. However, for present purposes, let me assume the following with regard to each situation:

1. The new product is not yet in the market. However, the company believes that if the new product is in the market, it will contribute to gaining competitive advantage (which the company desires) because the new product is innovative and it has no defects. Therefore, in order to gain competitive advantage, the company introduces the new product to the market.
2. The new product is not yet in the market. However, the company believes that if the new product is in the market, it will contribute to losing competitive advantage (which the company does not desire) because, although the new product is innovative, it has several major defects. Therefore, in order to maintain competitive advantage (i.e. to prevent it from dissipating), the company does not introduce the new product to the market.

In other words, *depending on the situation*, it seems tentatively that it may or may not be beneficial for a company to perform a particular competitive action.

In order to begin to formalize this illustrative account, let me denote a particular state of affairs with *p*. Furthermore, consider that in the previous example *p* designates a state of affairs 'the new product is in the market', and, correspondingly, that action *A* designates a competitive action with a description 'introduce new product to the market'. Now, I may give the following

description with regard to each of the previous situations (again, differences underlined for clarity):

1. Not-*p*. *A* (and nothing else) will bring about *p*. Company believes that <u>existence</u> of *p* contributes to the attainment of its desire. Therefore, company <u>performs</u> *A*.
2. Not-*p*. *A* (and nothing else) will bring about *p*. Company believes that <u>non-existence</u> of *p* contributes to the attainment of its desire. Therefore, company <u>does not perform</u> *A*.

Correspondingly, Chisholm (1964) suggests that if an actor prefers *p* over not-*p* (i.e. the actor believes that the existence of *p* will contribute to the attainment of its desire), and if the situation is such that *p* is not currently present and does not come into presence 'by itself', and that action *A* will bring about *p*, a rational result is that the actor proceeds to act accordingly, that is, performing *A*. In other words, the properties of the situation and the actor's preferences with regard to the situation in conjunction determine what will be the rational course of action for the actor to undertake.

Thus far, I have exemplified one type of situation: one in which a state of affairs is present and will not be present unless the actor, by its action, brings about the state of affairs. A natural question, then, is: are there other kinds of situations in addition to this?

In a logical sense, as von Wright (1963: 29) notes, there can be precisely four different types of such situations, which I henceforth will call 'elementary situations'. To describe these situations, von Wright has adopted a notion which he calls '*T*-expression'[96] in which the notion '*~pTp*', for instance, designates a situation in which the initial state is *~p* (designating that *p* is not present) and the end state is *p* (designating that *p* is present). In other words, the situation will transform 'by itself'[97] from *~p* to *p*. Correspondingly, the notion '*pTp*' designates a situation in which both the initial and the end state are *p* (meaning that *p* is present in both). As there are precisely two possible initial states, *~p* and *p*, and, correspondingly, precisely two possible end states, again, *~p* and *p*, there are precisely four combinations of these and, hence, precisely four elementary situations. These situations are presented in the following table.

Table 4. Elementary situations

Elementary situation	Initial state	End state
1. *~pT~p*	*~p*	*~p*
2. *~pTp*	*~p*	*p*
3. pT~p	*p*	*~p*
4. pTp	*p*	*p*

[96] The letter *T* designates 'transformation' or 'transition' (von Wright, 1963: 28)

[97] 'By itself' means that the transformation takes place unless the focal actor changes this transformation by its action.

Hence, the previous two exemplary descriptions represent the first elementary situation: the new product is not in the market (~*p*) and will not be in the market (~*p*) unless the company introduces the product into the market.

Now, concerning each of the four elementary situations, the preferences of the actor can be either compatible or incompatible with the end state of the situation. If the preferences of the actor are compatible with the end state of a certain situation, the actor is likely to forbear from acting as there is no need for any change in the end state. But if the preferences of the actor are incompatible with the end state, the actor is likely to change the end state in its favor by an appropriate action. Therefore, as the preferences of the actor can be either compatible or incompatible with the end state of a given elementary situation and as there are precisely four elementary situations, there are, as von Wright (1963: 42-49) notes, precisely eight elementary actions. These elementary actions are presented in the following table.

Table 5. Preferences, elementary situations, rationale for action, and elementary actions

Elementary situation	**Assumption 1:** Existence of *p* will contribute to the attainment of actor's desire → Preference for *p*	**Assumption 2:** Non-existence of *p* will contribute to the attainment of actor's desire → Preference for ~*p*
1. ~*pT*~*p*	Elementary action 1: **Bringing about *p*** (Result: *p*)	Elementary action 2: **Forbearing to bring about *p*** (Result: ~*p*)
2. ~*pTp*	Elementary action 3: **Forbearing to suppress *p*** (Result: *p*)	Elementary action 4: **Suppressing *p*** (Result: ~*p*)
3. pT~*p*	Elementary action 5: **Preserving *p*** (Result: *p*)	Elementary action 6: **Forbearing to preserve *p*** (Result: ~*p*)
4. pTp	Elementary action 7: **Forbearing to destroy *p*** (Result: *p*)	Elementary action 8: **Destroying *p*** (Result: ~*p*)

In theory, there are no other logically possible elementary actions beyond these[98].

[98] One might perceive also that indifference concerning *p* or not-*p* would have a role determining the rational action (namely, forbearing from acting). However, in this case, since an actor has no preferences in favor of *p* or not-*p*, the existence or non-existence has nothing to do with the goals of an action.

A noteworthy remark with regard to the preceding discussion and its culmination in Table 5 above is that *forbearing* from a certain type of action is equally action, as it 'actively' imposes change to the inherent nature of the situation[99]. No prior writer on competitive dynamics has acknowledged forbearing as a possible kind of competitive action but in this study it is considered equally action as 'active' or 'positive' action. This consideration is supported by von Wright, as he states:

> "…forbearance can have consequences. The consequences of a certain forbearance are the consequences of the state of change which is the result of this forbearance. Thus, *e.g.*, if the state described by *p* is the result of a forbearance to prevent it from coming into being, then everything which is a consequence of the change described by $\sim pTp$ is a consequence of this forbearance. There is no difference 'in principle' between the consequences of acts and of forbearances. (This is a logical observation of some importance to a certain type of ethical theory.)" (1963: 48, italics and remark in parentheses in original).

Thus, in short, since an actor can be held equally responsible for the consequences of both its 'positive' actions and forbearances, forbearances and 'positive' actions are equally actions. This equality of 'positive' actions and forbearances has also been made by Rayfield when he notes that "performances can … be divided into acts and forbearances" (1968: 142).

The notion of forbearance as a type of action is not very novel, however. Indeed, the English philosopher John Locke, in his *An Essay Concerning Human Understanding* already notes: "To avoid multiplying of words, I would crave leave here, under the word ACTION, to comprehend the forbearance too of any action proposed: sitting still, or holding one's peace, when walking or speaking are proposed, though mere forbearances, requiring as much the determination of the will, and being as often weighty in their consequences…" (Locke 1690: Book II, Ch. XXI, §28; capitalization in original).

Nonetheless, it might be argued that forbearance does not constitute an action because if one observes an actor not doing anything that one would consider an action, the actor must be performing a continuous series of forbearances, or, alternatively, a prolonged forbearance. Here, however, I must draw a distinction between different types of inaction. To begin with, Austin (1863) makes a clear difference between forbearance and 'omission' (or alternatively 'negligence'). According to Austin, the difference between forbearance and omission is that forbearance involves intention, whereas in the case of omission, intention is absent. Therefore, Austin remarks that forbearance is "voluntary inaction" (1863: 29), or, put differently,

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Therefore, forbearance resulting from indifference concerning *p* or not-*p* does not constitute an intentional, goal-directed action.

[99] In the philosophical literature actions and forbearances are sometimes called 'positive actions' and 'negative actions', respectively (see, e.g. Gewirth, 1982; James, 1982; Sidgwick, 1893).

forbearance is intentional inaction. Thus, forbearance occurs when an actor could perform an 'positive' action, and is aware of this, but decides not to do so.

Forbearance thus defined corresponds to von Wright's second strongest sense of forbearance: "an agent forbears only such action as he knows he can perform but *decides* (chooses, prefers) to leave undone on the occasion in question" (1963: 46, italics and parentheses in original)[100].

Now, let me illustrate each of the eight elementary actions, including forbearances, with an example from the domain of competitive dynamics. Consider, for each elementary action, that *p* designates, as exemplified above, the availability of a certain product produced by our focal company for the customers of the company (and, correspondingly ~*p* designates that the product is not available).

Elementary action 1: bringing about p. The situation in which bringing about *p* can occur is ~*pT*~*p*: the product is not available, and will not be available in the immediate future, unless the company does something about it. If the company feels that the availability of the product contributes to the attainment of its desire, the rational action is making it available: bringing about *p* by, say, introducing the product to the market.

Elementary action 2: forbearing to bring about p. The situation in which forbearing to bring about *p* can occur is identical with regard to the previous elementary action: the product is not available, and will not be available, unless the company makes it available. Now, if the company feels that making the product available now (or at a particular planned point of time in the future) is harmful for the attainment of its desire (e.g. because the product is not sufficiently ready for introduction or because it would substantially cannibalize the sales of an existing product of the company), the company rationally prefers that the product is not made available to the customers; the company prefers ~*p*. Thus, the corresponding rational action is to forbear to make the product available; to forbear to bring about *p*.

Elementary action 3: forbearing to suppress p. The situation in which forbearing to destroy *p* can occur is ~*pTp*: the product is not available, but without any action by the company it will be available. For instance, in the case of the products of movie production companies, movies, it is nowadays not particularly rare that a movie unauthorizedly (without permission from the production company) 'leaks' onto the market before its theatrical release (Dobuzinskis, 2006; Horiuchi, 1999) through, for instance, an employee in the post-production crew[101]. While usually a movie production company considers this harmful, it may decide not to prevent the movie becoming available in such an unauthorized manner, because, for instance, it may perceive that the company can benefit from this in the form of 'free publicity' (see, e.g. McIntyre, 1992: Chapter 1) to the extent that it exceeds the disadvantages (e.g. if it believes that people who have seen the

[100] The strongest sense of forbearing, according to von Wright, is when an actor feels an inclination or temptation to perform an action and chooses not to do so.

[101] In such a case, of course, the employee does not act on behalf of the company because he or she is not authorized to do so; c.f. sub-chapter 2.3.3.

low-quality unauthorized version may want to see the full-quality version as well, or if it believes that news agencies will make the event highly publicized, thus generating a lot of free advertising for the movie). If this is the case, the company will prefer the product becoming available without its action, the existence of *p*, and therefore the rational choice for the company will be forbearing to suppress the existence of *p*. In other words, the company will forbear to suppress the product becoming available in such an unauthorized manner[102].

Elementary action 4: Suppressing p. Suppressing *p* can occur in the same situation as the prior elementary action, *~pTp*: the product is not available but will become available in the absence of any action by the company. To use the same movie example as above, if the movie production company believes that the unauthorized availability of the movie is harmful to the company, as most movie production companies most likely believe, the rational action in this case for the company is to suppress this unauthorized availability; to suppress *p*.

Elementary action 5: Preserving p. The situation in which preserving *p* can occur is *pT~p*: the product is available and will not be available in the immediate future unless the company does something about it. For instance, public authorities may order that the sales of the product must be discontinued unless some product liability issues have been properly addressed. For instance, the product may lack instructions concerning some possible but dangerous incorrect use which may result or has resulted in an injury. Now, if the company has a preference for *p*, that the product will continue to be available, the rational choice for the company is to preserve that state of affairs by, for instance, complying with the demands of the public authorities by equipping the product with appropriate instructions with regard to incorrect use.

Elementary action 6: Forbearing to preserve p. The situation in which forbearing to preserve *p* can occur is identical with that of the previous elementary action: *pT~p*: the product is available and will not be available in the immediate future unless the company does something about it. Let us again consider that public authorities command that the product must be withdrawn from the market unless some product liability issues have been properly addressed. If, at the same time, the company has already observed that the product is at the end of its life cycle and has become unprofitable, it may be in the interests of the company that the product will no longer be available, and therefore the company prefers *~p* over *p*, and the rational choice for the company would be not to comply with the demands of the authorities, thus forbearing to preserve *p*; forbearing to preserve the availability of the product[103].

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[102] Here it may be argued that if the movie 'leaks' onto the market in the form of a low-quality copy, this is not (in a strict sense) the actual product seen in movie theaters. However, this argument poses no major problem if we perceive the product as being the *content* (e.g. the story) of the movie, independent of the underlying medium and such technical considerations. (After all, movie studios themselves deliver movies usually in different versions such as theater-quality, DVD, VCD and other formats.)

[103] It may be argued that in most such cases it would probably be more beneficial for the company to voluntarily withdraw the product from the market (and thus not suffer the negative publicity most likely associated with being subject to coercive means), in which case the action would not constitute as forbearing to preserve *p*, but instead another elementary action, destroying *p*, discussed below. However, with a stretch of the imagination it may be conceived that some company may prefer being 'victimized' by public authorities (thus earning sympathy from some customers, for instance) in a situation like this

Elementary action 7: Forbearing to destroy p. Forbearing to destroy *p* can occur in a situation in which the product is available and will be available in the immediate future, *pTp*, if the company does not change this end state with its action. Consider, for instance, that a company has earlier introduced a product in a highly competitive product category. In order to gain market share in this product category, the company has had to set the price of the product very low, perhaps under production cost, hoping that the product will eventually become profitable in itself or with the help of complementary products[104]. However, if the unprofitability continues[105], short-term profitability concerns would suggest that the product should be discontinued. However, if the company believes that continuing the availability of the product is beneficial for it in the long-term (for image, market share or psychological reasons) a rational choice is not to discontinue it, thus forbearing to destroy *p*.

Elementary action 8: Destroying p. Finally, destroying *p* can occur in the same situation, *pTp*, as the previous elementary action: the product is available and will be available in the immediate future if the company does not change this end state with its action. Consider, again, that the available product is in a highly competitive product category and the company is making losses with each unit sold. If there are no other compelling considerations than the short-term profitability of the product alone (and there are no changes in this regard in the foreseeable future), a rational choice for the company is to withdraw the product from the market, thus terminating the availability of it: destroying *p*.

Now, it seems that all the elementary actions can be at least rhetorically demonstrated to be reasonable in the case of a certain *p*: the availability of a product which a focal company produces. Moreover, as the elementary actions, theoretically speaking, apply generally to all intentional action, and since competitive action is intentional action, there is no *a priori* reason why these elementary actions would not apply to competitive action beyond the previous exemplary illustrative cases. Thus, I henceforth assume that the elementary actions are valid also in the case of competitive action. These elementary actions, then, constitute the first theoretical dimension in the typology of competitive actions currently under development.

Now, as the first of the two constituent theoretical components of the typology of competitive actions is laid out, let me next turn my attention to the second component: the general theory of competition. Whereas this chapter addressed the notion *elementary* actions (i.e. which general types of actions there can be in any given domain of action), the next chapter will discuss what *domains* of actions there can be in a competitive setting in which companies try to outperform their rivalrous counterparts.

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and, therefore, forbears to voluntarily withdraw the product from the market.

[104] For instance, it is argued that Microsoft made a loss of approximately $125 per unit sold with its Xbox 360 gaming console when it was introduced (Rushe, 2005).

[105] For instance, the division of Microsoft which produces the Xbox 360 gaming console is still unprofitable (Chmielewski, 2007).

4.2 Second Premise: Domains of Action

Generally speaking, there is no universally accepted theory of competition – either in strategic management, organizational theory or economics – which would exhaustively describe the process and outcomes of competition, and, furthermore, normatively prescribe how companies should behave in order to enjoy good performance. Instead, there are – particularly with regard to the literature on strategic management – different theories or views on competition which have more or less different views and emphases on the matter. Next I will briefly review a number of such theoretical perspectives in order to see which of these is particularly suitable with regard to research on competitive dynamics.

4.2.1 Theories of competition

Prominent theoretical perspectives on competition with regard to strategic management include industrial organization (Bain, 1956, 1959; Caves, 1980; Mason, 1939; Porter, 1981), Austrian economics (Jacobson, 1992; Schumpeter, 1934, 1950; von Mises, 1949), and organizational ecology (Betton and Dess, 1985; Hannan and Freeman, 1977, 1984) with the resource-advantage theory of competition (Hunt, 1995, 2000, 2004; Hunt and Morgan, 1995) as a more recent perspective.

All these perspectives describe the process of competition based on their different assumptions and emphases, and furthermore offer insights on companies' performance in a competitive setting. Thus, all the perspectives can potentially serve as the second theoretical premise of a typology of competitive actions. However, their assumptions have significant implications concerning how and where (in what kinds of contexts) they may be meaningfully applied. Therefore, I will next briefly review their central assumptions (and, in addition, how each perspective describes the process and outcomes of competition) and compare the perspectives with each other.

4.2.1.1 Industrial organization

The industrial organization (I/O) perspective on competition, often attributed originally to Mason (1939) and Bain (1956, 1959) in its traditional form (see, e.g. Mauri and Michaels, 1998), strongly emphasizes the role of the external environment of companies in determining their performance. Indeed, according to this perspective, the environment – and more specifically, an industry in which a company operates – has a more significant impact on the performance of a company than the choices and actions of the management of that company. Therefore, according to I/O, the performance of a company is primarily determined by the properties of the industry in which the company operates. Such industry properties are, for instance, the degree of product differentiation, degree of industry concentration and barriers to entry alongside the stage in the life cycle of the industry (i.e. whether the demand for the products of

the industry is growing, constant or declining), and the existence and importance of economies of scale (Caves, 1964; Hofer, 1975; Mauri and Michaels, 1998; Robinson and McDougall, 1998). Moreover, as the industry characteristics are shared by the companies in an industry, such companies "share competitive characteristics" (Mauri and Michaels, 1998: 213).

In a stronger form this perspective entertains the so-called 'structure-conduct-performance' paradigm according to which the environment determines the optimal strategy which a rational company will choose. Subsequently, as all rational companies follow that particular strategy, the environment in essence determines the performance of such companies (Robinson and McDougall, 1998). In other words, the structure of an industry determines the performance of its occupants, and therefore the conduct can, in practice, be omitted from examination.

Nonetheless, the I/O perspective on competition highlights the importance of choosing a factorable industry – or a favourable niche within an industry – in which to operate, because, after all, the industry is the major, if not indeed sometimes the sole determinant of company performance. Correspondingly, the 'five forces' framework, put forward by Porter (1980), provides managers with an analytical framework for assessing the favourability (i.e. attractiveness) of industries in order to make an informed decision concerning industry selection.

Thus, in a nutshell, managerial discretion, according to the I/O perspective, mainly concerns selecting a favourable industry and, after that, implementing a strategy which is necessitated by that industry in order to be successful there. In this sense, the I/O perspective is in a way at odds with the neoclassical theory of (perfect) competition, because the I/O perspective urges managers to select and operate in such industries in which the criteria of perfect competition do *not* hold, thereby allowing 'above-normal' profits to be earned (Jacobson, 1992). Otherwise, the I/O perspective does not leave much room for company-specific competitive action – particularly concerning the internal aspects of companies – as a source of competitive advantage (White and Hamermesh, 1981).

However, as the I/O perspective emphasizes the role of industry environment in determining companies' performances, this perspective mostly concerns itself with the *average* performance of companies in a given industry or, slightly differently, the performance of a *typical* company in the industry (Mahoney and Pandian, 1992; White and Hamermesh, 1981). Thus, in the words of Robinson and McDougall "[t]he unit of analysis in industrial organization is the industry, not the firms within a particular industry" (1998: 1081).

Nonetheless, in contrast to the neoclassical theory of (perfect) competition, I/O does allow companies to strive for competitive advantage with innovative actions, but maintains that such actions, if proven effective, are quickly imitated (Mauri and Michaels, 1998), and, therefore, the competitive situation tends to converge towards an equilibrium.

4.2.1.2 Austrian economics

Austrian economics (see Jacobson, 1992 for a review), as developed by Schumpeter (1934, 1950), von Mises (1949), von Hayek (1945) and Kirzner (1973, 1997), among others, discards most of the notions in neoclassical economics, in contrast to industrial organization, which, in turn, builds upon that economics tradition (Jacobson, 1992).

Indeed, while industrial organization puts substantial emphasis on competitive forces in an industry – especially on those restricting competition (e.g. entry barriers) – in determining companies' performance, Austrian economics, in turn, underscores entrepreneurial discoveries (i.e. innovative actions) as a source of performance gains (Jacobson, 1992; Young et al., 1996). Thus, while the typical unit of analysis in I/O is an industry, the unit of analysis in Austrian economics is an individual company (or an 'entrepreneur' in usual Austrian discourse) which is motivated by the prospective profits resulting from innovative actions.

According to the common view in Austrian economics, the competitive process proceeds as follows (Jacobson, 1992). A company (or an entrepreneur), motivated by potential profits to be earned, performs an innovative action, which disrupts the market (i.e. the action is disequilibrium-provoking). If the innovative action is, indeed, successful, it enables its initiator to enjoy competitive advantage, and therefore earn extra profits. This fact, in turn, provides competitors with an incentive for trying to imitate or surpass the focal company with their actions. Consequently, the competitive advantage of the focal company is challenged and eventually nullified by the imitative or innovative actions of its competitors, which, again, are disequilibrium-provoking. Furthermore, as competitive advantages are constantly created and nullified, the competition is continually in a state of disequilibrium. This continuous process is, in the vocabulary of Schumpeter, the process of "creative destruction" (1950: 84). In recent strategic management literature such a particularly intensive process has been labeled 'hypercompetition' (D'Aveni, 1994, 1995).

Thus, while the competitive process in I/O is usually thought to gravitate towards equilibrium (as in neoclassical economic theory), the Austrian school, as noted above, views that the competitive process is constantly in disequilibrium. However, like I/O, the Austrian view maintains that competitive advantage is short-lived, but in contrast to I/O, the Austrian view posits that this imitative behavior is still disequilibrium-provoking (i.e. not equilibrium-seeking), because imitation causes imitated companies, in turn, to pursue new innovative courses of action in order to maintain their market leadership.

Furthermore, another contrast between I/O and Austrian economics is that, while I/O enumerates certain characteristics of industries systematically associated with above-normal (average or typical) performance, Austrian economics largely maintains that such systematic determinants of above-normal performance may not exist because the market process is constantly in flux, and, therefore, the sources of competitive advantage vary from time to time and from competitive setting to competitive setting (Jacobson, 1992).

Thus, in a nutshell, the Austrian school of economics views competitive advantage and, consequently, superior performance to result from innovative (entrepreneurial) actions but, at the same time, does not explicitly and systematically address what such actions might, from time to time and from industry to industry, be.

4.2.1.3 Organizational ecology

Organizational ecology (i.e. the population ecology of organizations), originally formulated by Hannan and Freeman (Hannan and Freeman, 1977), draws heavily on biological science in describing the process and outcomes of competition among organizations, since it assumes that a process like natural selection in biology (Darwin, 1859) operates also with regard to competing organizations like rivalrous companies.

Like in biological science, the perspective on competition in organizational ecology is traditionally firmly footed in the notion of resources (see, e.g. Dobrev, 2007). Indeed, in organizational ecology the competition among companies – or any other types of organizations – is competition *over* resources (Geroski, 2001), which, in many cases, are scarce (and hence the need for competition over them). Accordingly, as Geroski (ibid.) notes, the two central concepts in this perspective are 'population' (of organizations such as companies which share a common dependence on the same resources) and 'niche' (which is the collection of resources sustaining a given population). Thus, the notion of resources is in a central role because the population is defined in terms of common resources and not in terms of what the members of the population do or make (e.g. a common end product).

What is of central interest for organizational ecologists with regard to competition is the dynamics with which a population evolves over time and the central measures of interest in this regard are the number of entries (into the population, i.e. 'births') and exits (from the population, i.e. 'deaths') (Freeman, 1995). However, of equal – if not more – interest is also how the process of evolution proceeds, and, furthermore, what explains that progression (Barnett and Burgelman, 1996).

According to a standard perception in organizational ecology, the process of competition proceeds, according to the "basic story" (Geroski, 2001: 512), roughly as follows (c.f. Betton and Dess, 1985; Geroski, 2001; Hannan and Freeman, 1977, 1984). First, some change (usually exogenous in origin) occurs in an environment, implying that a new niche comes into being which can support a new type of organization. After its inception, the niche starts to attract entrants, because there are untapped resources available. However, in the beginning the new organizations suffer from lack of legitimacy, and, therefore, their failure rate tends to be rather high. In other words, as the organization type (either in terms of its modes of operation or in terms of its output [i.e. end product]) is new, it is difficult for the early entrants to explain and justify their existence to their different stakeholders (such as [prospective] customers and

suppliers). But as the population in the niche gradually grows, the problem of legitimacy becomes smaller, because a larger number of organizations is more efficient in signalling the credibility of the new organization type to the environment (e.g. there is more interaction between the population and the environment, and, therefore, the environment becomes more familiar with the population). At this stage the population starts to grow more rapidly (i.e. the 'birth' rate increases). However, as the population in the niche grows enough, the population eventually reaches the 'carrying capacity' of the niche (i.e. the niche becomes congested) and more vigorous competition over the resources begins, which, in turn, increases the exits (i.e. 'deaths') from the niche, as some organizations succeed and some others do not in this competition.

Nonetheless, what is perhaps more important with regard to this study is what takes place at and follows another change with regard to a given population – either during the growth phase of the population or after the population has reached maturity (i.e. reached the carrying capacity of the niche). Namely, a central premise in this regard is that even when an environment requires organizations to change, organizational ecology maintains that existing organizations, including companies, are rather inflexible to change. Or, perhaps more precisely, existing organizations change (adapt) significantly slower in responding to (exogenous) environmental changes than new organizations are formed to take advantage of these changes. Thus, as existing organizations are rigid to adapt, such organizations are, therefore, selected against in the event of environmental change.

The rigidity to change, in turn, is viewed to be because the structure and other essential properties of an organization become fixed in a brief period of time following its inception and, thereafter, are subject to structural inertia (Hannan and Freeman, 1984). This inertia, in turn, is present due to, for example, sunk costs in physical technology, rigidity in managerial cognition, organizational politics, established forms of legitimacy, and the rigidity of organizational routines (Betton and Dess, 1985; Mintzberg, Ahlstrand and Lampel, 1998: 291). This inertia is not, however, according to population ecology, an entirely negative phenomenon even though it significantly restricts the ability of organizations to change. In contrary, inertia is actually seen as a by-product which results as companies build in order to survive in their initial environment, their reliability and accountability (Hannan and Freeman, 1977).

Therefore, if there are major changes in the environment of a given company – and if the changes are threatening to it (as they usually are from the viewpoint of organizational ecology) – there is, according to this perspective, relatively little an individual company can do in order to enhance its probability of survival. And, if the structure of an existing company does not fit to the new environment (e.g. because it has not accumulated enough organizational slack [e.g. unutilized excess resources] to cushion itself against environmental changes, or because of a lack of luck in being fit for different environments), as usually is the case, the company becomes replaced (i.e. 'dies', by going bankrupt or being acquired) by other companies which are more suitable with regard to the new environmental conditions.

Thus, this view, like I/O, also emphasizes the primacy of the role of the external environment in determining companies' success (or, ultimately survival): companies depend more on environmental selection than internal adaptation (i.e. strategic choices and actions) (Astley and de Ven, 1983; Betton and Dess, 1985).

Thus, the notion of inertia, which is seen to be an inherent property in every incumbent (especially large) organization (and, indeed, seen *necessary* for being successful in a given environment), according to organizational ecology, leaves little room for strategic management. However, this may also be due to the fact that in organizational ecology performance is usually equated with survival, and, accordingly, inter-organizational differences in performances within a given population are commonly of no particular interest (Geroski, 2001).[106]

4.2.1.4 Resource-advantage theory of competition

A more recent entrant among different views on competition is the resource-advantage theory of competition (or, subsequently, the general theory of competition) originally formulatd by Hunt and Morgan (1995) and later refined by Hunt and his colleagues (e.g. Hunt, 1997, 2000; Hunt and Arnett, 2003).

This view contrasts itself – like the Austrian school of economics – heavily against the neoclassical theory of (perfect) competition. Indeed, substantial emphasis is based in this view on arguing the unacceptability of the assumptions made by the neoclassical theory while maintaining that the resource-advantage theory can accommodate the neoclassical view as a special case (Hunt and Morgan, 1995, 1996).

The resource-advantage theory of competition draws upon various theoretical perspectives, which, according to Hunt and Morgan (1995), are the resource-based view of the firm (Barney, 1991; Conner, 1991), the literature on competitive advantage in marketing (Bharadwaj, Varadarajan and Fahy, 1993; Day and Nedungadi, 1994; Day and Wensley, 1988) and industrial organization (Porter, 1980, 1985, 1990), Austrian economics (Dickson, 1992), the literature on differential advantage in marketing (Alderson, 1957, 1967), and economics (Clark, 1961). In this sense, the resource-advantage view, therefore, shares affinities with Austrian economics and I/O.

[106] However, it must be noted that even though the preceding description about the process of competition is the "basic story" (Geroski, 2001: 512), recent evolutionary approaches have adopted less restrictive stances, being more allowing toward endogenous 'strategic variation' in a focal population (Barnett and Burgelman, 1996), thus leaving more room for 'strategic search' (Makadok and Walker, 1996; Stuart and Podolny, 1996), and, consequently, strategic choices (i.e. adaptation), both in organizational and population level (Dobrev, 2007). Moreover, in the work of Dobrev (ibid.) companies' actions (essentially product-related and market-oriented, such as new product introductions) are seen to modify the niche in which an organization is located, thus making the notion of niche less rigid. Moreover, he argues that a given population, using the United States car manufacturers as an example, may consist of several sub-populations (defined in this case in terms of car engine output power; low/medium/high) – even though the strict resource-based definition of a population would not suggest it – because companies *perceive* that some members of the population, but not others, are their competitors, thus opening the ecological perspective for insights from managerial cognition.

However, the resource-advantage view, as the name suggests, for the purposes of this study, most heavily draws upon the resource-based view of the firm in describing the process and outcomes of competition. Namely, in accordance with RBV, the resource-advantage theory maintains that resources are the primary source of competitive advantage, because, to begin with, resources allow companies to produce certain value for their customers at certain costs, and, furthermore, because resources are heterogeneous across companies: some companies have a resource-based advantage over their rivals (being able to produce more value and/or having lower costs based on their resources). Moreover, because resources are imperfectly mobile (or there are at least some resources [like reputation and organizational culture] that are imperfectly mobile), this resource-enabled competitive advantage can persist for a non-trivial period of time (Hunt, 1995, 2000; Hunt and Morgan, 1995). Thus, to recapitulate, if a company has resources which allow it to produce more value and/or have lower costs in doing so, the company has competitive advantage, and, therefore, enjoys better performance than its rivals. Hence, the view on competition in the resource-advantage theory is essentially a resource-based one.

As to the nature of these resources, the resource-advantage theory explicitly enumerates seven resource categories: (1) financial, (2) physical, (3) legal, (4) human, (5) organizational, (6) informational, and (7) relational resources (Hunt, 2000).

As to the role of management in the resource-advantage theory, this view maintains that the managers of a company are very much concentrated in achieving a position for the company in which it has a comparative resource advantage over its rivals. In addition, the role of managers is to identify attractive market segments and appropriate market offerings which are compatible with the resources of the company.

Now, after having briefly reviewed the four selected theories of competition, let me next compare these in order to see which would be the most appropriate one as the second premise for the typology of competitive action (addressing the *domains* of competitive actions – actions by companies in a competitive setting).

4.2.1.5 Selecting an appropriate theory of competition

The following table briefly summarizes the essential characteristic properties of each view on competition, as discussed above, for the purpose of comparison.

Table 6. Different theories of competition

	Industrial organization	**Austrian economics**	**Organizational ecology**	**Resource-advantage theory**
Primary unit of analysis	Industry	Company	Company/ population	Company
Primary view on competitive advantage	Industry structure	Innovative actions	Organizational fitness to environment	Resources
Role of management	Choosing an attractive industry	Entrepreneurial discovery	Building legitimacy and slack	Attaining comparative resource advantage

As the table indicates, industrial organization stands out, because in contrast to all other views, it has industry (i.e. a group of companies in a shared industry environment) as the primary unit of analysis, whereas all other views focus on individual companies instead. This fact renders I/O a somewhat inappropriate theory of competition with regard to competitive action, because competitive dynamics is mainly concerned with the actions of individual companies. Furthermore, competitive dynamics is usually more interested in the competitive interaction of rivalrous companies in a given industry instead of competitive activity across different industries in general or on average. Therefore, I/O does not seem to be a very appropriate theoretical premise for a typology of competitive action.

Consider next organizational ecology. This view does examine the performance (or better, the survival) of individual companies, but with respect to competitive dynamics is not very appropriate either, because this view maintains that there is not really much room for strategic management and, correspondingly, the competitive actions of companies in affecting their performance. Quite on the contrary, the notion of inertia suggests that there is rather little (at least in the case of incumbent companies) an individual company can do, shortly after its inception onwards, to influence its performance (and, ultimately, survival). Hence, organizational ecology does not appear particularly appropriate as a theoretical premise for a typology of competitive action because it very much dismisses the efficacy of such actions in determining the performance of a company.

Thus, two possibilities remain: Austrian economics and the resource-advantage theory of competition. Both these views are quite similar in their general world view – most probably due to the fact that Austrian economics is one of the underlying bodies of knowledge in the resource-advantage theory. Both perspectives, for instance, emphasize the disequilibrium-

provoking nature of competition: companies are seen to constantly challenge each other in their pursuit of above-normal performance through initiative (innovative) and imitative actions. Nevertheless, what differentiates these perspectives from each other, in the light of the preceding discussion, is the view which these perspectives take on competitive advantage. Austrian economics views innovative (entrepreneurial) actions as the source of competitive actions, whereas the resource-advantage theory attributes competitive advantage primarily to the resources of companies. However, Austrian economics generally does not proceed to elaborate the particular varieties or types of such innovative actions (because that can not be meaningfully done, since no two competitive settings are the same), while the resource-advantage theory does elaborate the more specific nature resources, which are, in this perspective, seen as the primary source of competitive advantage.

Therefore, from a practical typological standpoint, the resource-advantage theory of competition seems more applicable as a theoretical premise for a typology of competitive action because it explicitly addresses and enumerates different domains of action (i.e. actions concerning different specific resource categories) relevant in a competitive setting (i.e. as sources of competitive advantage), while the Austrian economics view mainly contents itself with the notion of innovative (and imitative) action in general. Moreover, the resource-advantage theory of competition is perhaps closer to contemporary thinking in strategic management, as this theoretical perspective builds heavily upon the resource-based view of the firm – one of the dominating views, if not indeed currently *the* dominant view, on competitive advantage in the literature on strategic management.

Thus, for present purposes, it seems that the resource-advantage theory of competition (i.e. the general theory of competition) is the most appropriate theory of competition for a typology of competitive action because it – both from practical and theoretical points of view – addresses the domains of action in a competitive setting most meaningfully and, in particular, explicitly.

Let us next, then, examine the resource-advantage theory in more detail concerning its view on competitive advantage in particular.

4.2.2 Origins of competitive advantage and the resource-advantage theory of competition

For the resource-advantage theory of competition, competition is, according to Hunt and Morgan, "the constant struggle for comparative advantages in resources that will yield marketplace positions of competitive advantage for some market segment(s) and, thereby, superior financial performance" (1995: 13). Put in an illustrative form, the mutual relationships of the central constructs in the quote above seem to be as depicted by the following figure.

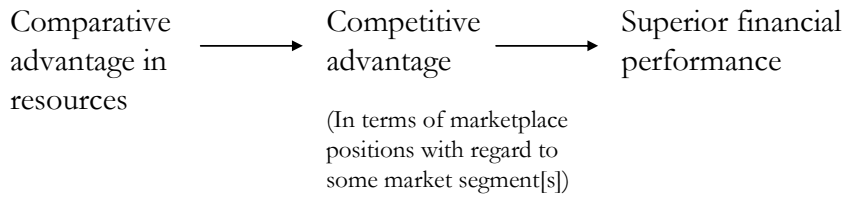

Figure 7. Central constructs of the resource-advantage theory and their relations

Or, to be more precise, the line of reasoning takes the following form (adapted from Hunt, 1995: 318):

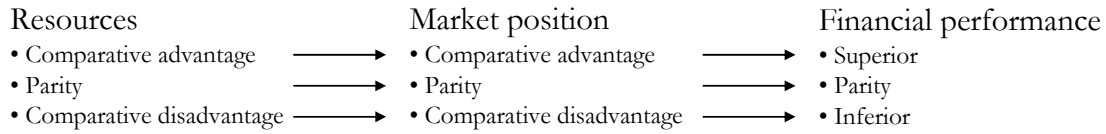

Figure 8. Relationships between resources, market position and financial performance

As Figure 7 above describes, the *primary* objective of a company is assumed to be superior financial performance[107], which is here assumed to be created by competitive advantage – a pivotal concept in strategic management, as noted already earlier. This linkage between competitive advantage and the attainment of the primary objective of a company is not unique to the resource-advantage theory, but is rather widely accepted in the literature of strategic management, or, as Rouse and Daellenbach note: "[c]ompetitive advantage continues to provide the central agenda in strategy research" (1999: 487).

Whereas the linkage between competitive advantage and the attainment of a company's objectives is not distinctive to the resource-advantage theory, the other linkage depicted by Figure 7 above, that between competitive advantage and comparative advantage in resources, to some degree is. In the literature on strategic management this view is primarily adopted by the resource-based view of the firm (see, e.g. Barney, 1996; Mahoney and Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984).

[107] The resource-advantage theory of competition assumes that companies do not *maximize* their wealth (in contrast to the neoclassical theory of competition), but instead maintains that the primary objective of a company is superior financial performance by some standard of choice (Hunt, 2000: 123-127). Thus, superiority can be compared by a company with any referent it chooses (e.g. financial performance of a competitor, average financial performance within an industry, own past financial performance, or some other desired level of financial performance). Moreover, the actual measure of financial performance may be freely chosen by a company (e.g. accounting profit, accounting profit per share, or return on investment). Thus, according to the resource-advantage theory of competition, companies do not purely maximize their financial performance, but try to reach a level exceeding that of the chosen referent. In this sense, companies exhibit 'satisfying' behavior (see, e.g. Taylor, 1982) instead of maximizing behavior.

As all competing companies usually can not achieve superior financial performance at the same time[108], those companies that do not enjoy that at one point of time are bound to struggle to achieve it in the future. This struggle, according to the resource-advantage theory, is manifested as actions which aspire to (re)establish a comparative resource advantage position of a company over its rivals. This, in turn, implies that the process of competition is disequilibrium provoking, because companies experiencing "competitive disadvantage" and "competitive parity" (Barney and Hesterly, 2006: 13) are likely to make every effort to disrupt the prevailing situation in their favour. In this latter, more general sense the resource-advantage theory is consistent with the Austrian school of economics.

All in all, according to the resource-advantage theory of competition, competitive advantage is founded on individual resources and bundles of such resources to which a company has access. The competitive advantage, then, is the superior ability – based on the resources, and as compared to competing companies – to produce efficiently and/or effectively market offerings that are perceived as valuable by one or more market segments. Finally, market segments are, according to Hunt, "intra-industry groups of consumers whose tastes and preferences with regard to an industry's output are relatively homogeneous" (2000: 137-138). Therefore, competing (or rivalrous) companies are such companies which have offerings that appeal (or are intended to appeal) to the tastes and preferences of one or more of the same market segments.

To recapitulate, a company has a comparative advantage in resources when "a firm's resource assortment enables it to produce a market offering that, relative to extant offerings by competitors, (a) is perceived by some market segment(s) to have superior value and/or (b) can be produced at lower costs" (Hunt, 1995: 323).

These two aspects – value-producing potential and costs associated with resources – and the resulting competitive positions are depicted in the following figure (adapted from Hunt, 1995: 319).

[108]The resource-advantage theory of competition, however, allows competing companies to have different measures for financial performance, and, additionally, different referents for superiority. Thus, these assumptions, in theory, allow the existence of a situation in which all competing companies *can* achieve superior performance at the same time (because they view it subjectively). Hence the use of the word 'usually'.

Relative resource costs	Relative resource-produced value: Lower	Parity	Superior
Lower	Indeterminate position	Competitive advantage	Competitive advantage
Parity	Competitive disadvantage	Competitive parity	Competitive advantage
Higher	Competitive disadvantage	Competitive disadvantage	Indeterminate position

Figure 9. Competitive position matrix

The neoclassical theory of competition, the theory of perfect competition, occupies the centre cell ('competitive parity'), as all companies are identical with regard to their resources ('factors of production') and as the resources can be acquired from a perfectly competitive market, which, in turn, implies that the costs associated with resources are identical for each company. The resource-advantage theory of competition, in contrast, posits that companies (at least those that do not enjoy satisfactory financial performance) constantly struggle towards the upper-right corner of the matrix. Furthermore, according to the resource-advantage theory and the Austrian school of economics more in general, this is not harmful (i.e. deviation from the perfect competition implying a market failure) but in contrast is seen as the driver of economic growth (Hunt, 1995) and thus highly desirable.

Of course, beyond merely achieving a position of competitive advantage, an essential goal of a company is to sustain it over a considerable period of time. Put alternatively, a central goal of a company is to gain sustained competitive advantage. Therefore, a question arises: what properties must a resource or a bundle of resources have for it to be a source or sustained competitive advantage?

According to Barney (1991), there are four such properties (or 'attributes' in his discourse). The resource must be 1. valuable, 2. rare among current and potential competitors, 3. imperfectly imitable (or inimitable), and 4. there are no strategically equivalent substitute resources that are valuable and neither rare nor imperfectly imitable (or inimitable). This framework appears in a slightly modified form in Barney and Hesterly (2006). To this list Hunt adds that the resource must be (5.) "non-surpassable" (2004: 14). This means that, in addition to mere substitution, there are no *better* corresponding resources available for competitors.

Now, since the foundation of competitive advantage and, subsequently, superior financial performance are, according to the resource-advantage theory of competition, the resources to which companies have access, these resources are next examined in more detail.

4.2.3 Resources and the resource-advantage theory of competition

As already noted above, the resource-advantage theory of competition enumerates seven types of resources (Hunt 2000: 128)[109] [110] [111]:

1. Financial resources
2. Physical resources
3. Legal resources
4. Human resources
5. Organizational resources
6. Informational resources
7. Relational resources

This enumeration is based, according to Hunt and Morgan (1995), on the prior works of Barney (1991), Day and Wensley (1988), and Hofer and Schendel (1978).

Now, a central question that arises is what more specific resources are included in these higher-level categories. I will address this question next. And, as the resource-advantage theory of competition in this respect builds upon the resource-based literature in the field of strategic management, the question will be addressed relying on the same stream of literature – the resource-based view of the firm.

It must be noted, however, that no author to date – at least to my best knowledge – has claimed that his or her list of specific resources for a given resource category (such as, say, financial resources) would be an *exhaustive* inventory of more specific resources included in that resource category. Instead, the authors posit that their lists are exemplary by their nature. In this respect,

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[109] There are, however, other suggested enumerations as well. For instance, Grant (1991) lists six categories: 1. financial, 2. physical, 3. human, 4. technological, 5. reputational, and 6. organizational resources. Correspondingly, Dyer and Singh (1998) list five categories: 1. scarce physical resources, 2. human resources/know-how, 3. technological resources, 4. financial resources, and 5. intangible resources.

[110] There are also enumerations of industry-specific (important) resources. For instance, according to Mehra (1996), in the banking industry key resources include 1. management quality and depth, 2. franchise (essentially reputation), 3. asset/credit quality, 4. technological expertise, 5. placing power ("distribution capabilities and 'muscle' of a bank", p. 321), 6. adequacy of the capital base, 7. resource management/efficiency, 8. innovation, 9. risk management, and 10. information asymmetries.

[111] Dahan (2005) proposes an additional (eighth) category of "political resources". However, its specific contents are generally contained in the seven high-level categories by Hunt (2000). In effect, political resources, as discussed by Dahan (2005), are generic resources (such as financial resources) that are useful for influencing political decision-making (e.g. in the form of campaign contributions). Nonetheless, the political resources proposed by Dahan are 1. expertise, 2. financial resource(s), 3. relational resource(s), 4. organizational resource(s), 5. reputation with political actors, 6. public image, and 7. stakeholders' support.

Grant's articulation is representative: "[t]he individual resources of the firm include items of capital equipment, skills of individual employees, patents, brand names, finance, *and so on*" (1991: 118, italics mine). Additionally, several authors in the RBV literature only make a very high-level distinction between tangible and intangible resources and do not address the question of specific resources at all. Nonetheless, in the following the more specific resources mentioned under each of the seven resource categories are also exemplary by their nature. In other words, the following brief literature review on resources is intended to be rather an 'interpretation guide' than a fully developed classificatory scheme. With respect to each resource category, the seven categories provided by Hunt (2000: 128) are used as an initial guideline to make interpretations concerning specific resources in such cases where an author has not provided reference for any higher-level category resembling those enumerated by Hunt.

Financial resources. Financial resources encompass, according to Barney and Hesterly (2006) all money, from any source, that a company can use to conceive and implement its strategy. Some authors do not differentiate financial resources any further, but instead refer to them by concepts such as 'capital' (Wernerfelt, 1984), 'financial capital' (Bharadwaj, 2000), or simply 'money' (de Wit and Meyer, 1998). Wernerfelt and Chatterjee (1991), however, divide financial resources into internal and external financial resources. According to them, the first include liquidity at hand and unused debt capacity, whereas the latter encompass new equity and high-risk debts[112]. According to Coulter (2005), in turn, internal financial resources encompass the financial holdings of a company (exemplified by retained earnings, other cash reserves, and investments) whereas external ones take the form of actual and potential debt and equity. In sum, financial resources are all the monetary resources – internal or external – a company possesses, otherwise has at its disposal, or has access to. The following table enumerates these and other examples of financial resources put forward in prior literature.

[112] Moreover, Wernerfelt and Chatterjee view financial resources to have a particular nature: "[f]inancial resources in general are the most flexible of all resources because they can be used to buy all other types of productive resources" (1991: 35)

Table 7. Examples of financial resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Cash reserves, access to financial markets
Wernerfelt (1984)	Capital
Mahoney and Pandian (1992)	Cash flow, debt capacity, new equity availability
Bharadwaj (2000)	Financial capital
Wernerfelt and Chatterjee (1991)	Internal financial resources (liquidity at hand and unused debt capacity) and external financial resources (new equity and high-risk debts)
Hitt et al. (1999, 2001, 2005)	The firm's borrowing capacity, the firm's ability to generate internal funds
Johnson and Scholes (2002), Johnson et al. (2005)	Capital, cash, debtors and creditors, and suppliers of money (shareholders, banks etc.)
Coulter (2005)	The financial holdings of the organization (cash reserves, investments, and so forth), the actual and potential debt and equity used by the organization, and any retained earnings
de Wit and Meyer (1998)	Money[113]
Grant (2005)	The firm's borrowing capacity, its internal funds
Barney and Hesterly (2006)	All the money, from whatever source, that firms use to conceive and implement strategies: cash from entrepreneurs, from equity holders, from bondholders, and from banks, retained earnings

Physical resources. Perhaps a standard treatment (see, e.g. Bharadwaj, 2000; Hitt, Ireland and Hoskisson, 1999, 2001; Hitt et al., 2005; Hunt, 2000) with regard to physical resources encompasses plants, raw materials, and equipment[114]. Some authors elaborate the notion of plants to include buildings[115] and land (see, e.g. de Wit and Meyer, 1998), whereas some others supplement the list with inventories (Mahoney and Pandian, 1992), and computer hardware and software[116] (Barney and Hesterly, 2006; Ravichandran and Lertwongsatien, 2005). Moreover, several authors suggest that one particular physical resource is the geographical location of all the above (see, e.g. Barney, 1991; Henri, 2006; Wheelen and Hunger, 2006). Again, it suffices that a company has access to a particular physical resource – with or without ownership over the resource in question. The following table enumerates these and other examples of physical resources put forward in prior literature.

[113] Originally under high-level category "tangible resources".

[114] Equipment has also been referred to with terms 'machinery' (Wernerfelt, 1984), 'physical technology' (Barney, 1991), and 'production capacity' (Johnson and Scholes, 2002).

[115] Or facilities of any kind (Coulter, 2005).

[116] In this case computer databases and other similar software, applications or systems in the sense of software *products* are included here. However, *information stored* in such software products is excluded and is, in turn, included in informational resources as discussed below.

Table 8. Examples of physical resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Plants, raw materials, equipment
Wernerfelt (1984)	Machinery
Barney (1991)	Physical technology, plant, equipment, geographical location, access to raw materials
Mahoney and Pandian (1992)	Plant, equipment, inventories
Dyer and Singh (1998)	Land, raw material inputs, process technology
Bharadwaj (2000)	Plant, equipment, stocks of raw materials
Henri (2006)	Specialized production facilities, geographical location
Wheelen and Hunger (2006)	Plant, equipment, location
Hitt et al. (1999, 2001, 2005)	Sophistication and location of a firm's plant and equipment, access to raw materials
Johnson and Scholes (2002), Johnson et al. (2005)	Machines, buildings, production capacity
Carpenter and Sanders (2007)	Land, real estate, location[117]
Hunger and Wheelen (2007)	Plant, equipment location
Coulter (2005)	Machines, office buildings, manufacturing or sales facilities, raw materials, or any other tangible materials the organization has
de Wit and Meyer (1998)	Buildings, machines, materials, land[118]
Grant (2005)	The size, location, technical sophistication, and flexibility of plant and equipment; location and alternative uses for land and buildings; reserves of raw materials
Barney and Hesterly (2006)	All the physical technology used in a firm: plant and equipment (including computer hardware and software technology, robots used in manufacturing, and automated warehouses), its geographical location, and its access to raw materials.
David (2007)	Plant, equipment, location, technology, raw materials, machines
Johnson et al. (2005)	Number of machines, buildings, or the production capacity of the organization
Ravichandran and Lertwongsatien (2005)	Information technology hardware and software

Legal resources. Legal resources are resources (often perceived as intangible) which are legally protected against acquisition or imitation by a competitor (or any other interested party, for that

[117] Location originally under high-level category "intangible resources"

[118] All under high-level category "tangible resources"

matter) such as patents, trademarks[119] and copyrights (see, e.g. Hitt et al., 1999, 2005). There are very few additions to this standard treatment, but such supplements include licenses (Hunt, 2000) and registered designs (Coulter, 2005). The following table enumerates these and other examples of legal resources put forward in prior literature.

Table 9. Examples of legal resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Trademarks, licenses
Wernerfelt (1984)	Brand names
Hitt et al. (1999, 2001, 2005)	Patents, trademarks, copyrights[120]
Johnson and Scholes (2002), Johnson et al. (2005)	Brands, patents[121]
Carpenter and Sanders (2007)	Patents, trademarks[122]
Coulter (2005)	Brand names, patents, copyrights, registered designs[123]
Grant (2005)	Patent portfolio, copyrights
David (2007)	Patents, trademarks, copyrights[124]

While the preceding resource categories have been rather straightforward to perceive, the following categories are substantially more difficult. For instance, if an R&D scientist in a company personally knows a university researcher who keeps the R&D scientist informed concerning recent developments in a particular field of research, this may well be a valuable resource for a company. But the vagueness here is the following: is this a human resource (concerning a particular employee of the company), an informational resource (after all, valuable information is transmitted to the company) or perhaps a relational resource (a member of the company has a relationship with the informant)? To resolve this issue certain choices must be made to favour one interpretation over another. These choices and their grounds are presented – alongside exemplifications concerning corresponding specific resources – in the following.

Human resources. According to Barney (1991) and Barney and Hesterly (2006), human resources are concerned with *individual* employees (of any kind, be it managers, experts of a particular field or function, or other kinds of employees) of a company, whereas organizational resources are about the company as a *collective*. Even though Barney and his colleague (ibid.) do not explicate this concerning relational resources (discussed more in detail below), the examples they provide implicitly suggest that relational resources concern the company as a *collective* as well. Therefore,

[119] Or 'brand names' (Wernerfelt, 1984).

[120] Originally under higher-level category "technological resources" which, in turn, is under highest-level category "intangible resources"

[121] Originally under high-level category "intellectual capital"

[122] Originally under high-level category "intangible resources"

[123] Originally under high-level category "intangible assets"

[124] Originally under high-level category "organizational resources"

resources attributable to individual employees, including their relationships with parties external to a company, are included in human resources. Thus, the previous example concerning the relationship between a R&D scientist and university researcher would fall under human resources. One additional remark concerns the notion "parties external to a company" above. Namely, relationships between individuals and collectives *within* a company are interpreted to fall under organizational resources because such relationships closely equate with examples of specific organizational resources enumerated below. Now, examples of human resources stemming from individual employees are their skills and knowledge (Hunt, 2000), training (perhaps meaning formal training), experience, relationship, and insight (Barney, 1991), diversity (Auh and Menguc, 2006; Johnson et al., 2005), and intelligence, adaptability, commitment and loyalty (Hitt et al., 1999). In sum, it seems that any particular beneficial characteristic of an individual employee would contribute to the human resources of a company[125]. The following table enumerates these and other examples of human resources put forward in prior literature.

Table 10. Examples of human resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Skills and knowledge of individual employees
Wernerfelt (1984)	Skilled personnel
Barney (1991)	Training, experience, intelligence, relationships and insight of individual employees
Mahoney and Pandian (1992)	Scientists, production supervisors and sales personnel
Dyer and Singh (1998)	Managerial talent
Bharadwaj (2000)	Employee training
Henri (2006)	Engineering experience, experience in chemistry, management skills and superior sales force
Auh and Menguc (2006)	Functional and experience diversity of top management team
Wheelen and Hunger (2006)	(Number of) employees and their skills
Hitt et al. (1999)	The training, experience, judgment, intelligence, insights, adaptability, commitment, and loyalty of a firm's individual managers and workers
Hitt et al. (2001, 2005)	Knowledge, trust, managerial capabilities
Johnson and Scholes (2002)	Knowledge, skills of people and adaptability of human resources
Johnson et al. (2005)	Number and mix (e.g. demographic profile) of people in an organization; their skills and knowledge
Carpenter and Sanders (2007)	Knowledge[126]
Hunger and Wheelen (2007)	Number of employees and their skills

(Table continues on the next page)

[125] Mahoney and Pandian (1992) provide a notable exception to this by listing concrete professions or functional positions such as scientists, production supervisors and sales personnel as varieties of human resources.

[126] Originally under high-level category "intangible resources"

(Table continues from the previous page)

Coulter (2005)	The experiences, characteristics, knowledge, judgment, wisdom, skills, abilities, and competencies of the organization's employees
Grant (2005)	The education, training and experiences of employees; the adaptability of employees (strategic flexibility), social and collaborative skills; commitment and loyalty of employees
Barney and Hesterly (2006)	Training, judgment, intelligence, relationships, and insight of individual managers and workers in a firm
David (2007)	All employees; their training, experience, intelligence, knowledge, skills, abilities

Organizational resources. As noted above, organizational resources concern the company as a whole – as a collective. In the existing literature there is no established definition or description about organizational resources. However, the usual enumeration of such resources includes organizational routines[127], organizational culture[128] and control systems (Hunt, 2000), alongside reputation (Wernerfelt, 1984), brand recognition (Mahoney and Pandian, 1992), formal reporting structure, and formal and informal planning (Barney, 1991). Some authors (e.g. Hitt et al., 2005) have elaborated the notion of reputation by distinguishing between reputation with customers (in terms of brand name, perceptions of product quality, durability, and reliability) and reputation with suppliers (in terms of efficient, effective, supportive, and mutually beneficial interactions and relationships). However, even though these stakeholders are, no doubt, central to most companies, it seems unjustified to restrict the notion of reputation to include only these two stakeholder groups. Therefore, in this study the notion of reputation refers to all stakeholders of a company. And, as noted above, relations among individuals and collectives within a company fall into this category because these are rather close to e.g. informal planning (Barney, 1991), organizational culture or climate (Hunt, 2000; Rouse and Daellenbach, 1999) and organizational routines (Hunt, 2000) in particular. The following table enumerates these and other examples of organizational resources put forward in prior literature.

[127] Or 'procedures' (Wernerfelt, 1984)

[128] Or 'organizational climate' (Rouse and Daellenbach, 1999)

Table 11. Examples of organizational resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Controls, routines, cultures and competencies
Wernerfelt (1984)	Reputation, efficient procedures
Mahoney and Pandian (1992)	Reputation, brand recognition, goodwill, quality control systems, corporate culture
Barney (1991)	Formal reporting structure, formal and informal planning, controlling systems, coordinating systems, relations among groups within a company
Dyer and Singh (1998)	Reputation
Rouse and Daellenbach (1999)	Organizational climate, organizational culture, employee empowerment and participation, and informal communication
Bharadwaj (2000)	Organizational culture, brand image, product quality, employee loyalty

Informational resources. According to the examples provided by Hunt (Hunt, 2000: 128), informational resources include knowledge about market segments, knowledge about competitors, and knowledge about technology[129]. Accordingly, Wernerfelt's notion of "in-house knowledge of technology" (1984: 172) and Bharadwaj's (2000) itemizations of technical know-how and other knowledge assets fall under informational resources[130]. The following table summarizes these examples.

Table 12. Examples of informational resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Knowledge about market segments, competitors and technology
Wernerfelt (1984)	In-house knowledge of technology
Bharadwaj (2000)	Technical know-how and other knowledge assets

Relational resources. Hunt (2000: 128) exemplifies relational resources to encompass relationships with competitors, relationships with suppliers, and relationships with customers. Thus, Wernerfelt's example "trade contacts" (1984: 172) probably equates with the general notion of relational resources. And, as noted above, Barney's (1991) relations between a company and

[129] "Technological capabilities" are also mentioned by Mahoney and Pandian, which they perceive to encompass "high quality production" and "low cost plants" (1992: 364). As they list technical means of production (equipment) and plants already under the category of physical resources, their view on technological capabilities is interpreted here as technological knowledge of *how to achieve* high quality production and low cost plants. Therefore, technological capabilities are rather close of "knowledge about technology" as enumerated by Hunt (2000: 128).

[130] The interpretation concerning 'other knowledge assets', however, is admittedly controversial because of the vagueness of the wording. Therefore, another easily justifiable high-level category for 'other knowledge assets' could be organizational resources (includes e.g. "organizational competences"; Hunt, 2000).

groups in its environment are here included under relational resources. The following table summarizes these examples.

Table 13. Examples of relational resources in prior literature

Author(s)	Example(s) provided
Hunt (2000)	Relationships (of a company as a whole) with competitors, suppliers and customers
Wernerfelt (1984)	Trade contacts
Barney (1991)	Relationships between a company and groups in its environment

Thus, to summarize, the resource-advantage theory of competition maintains that the competitive advantage of any company derives from its resources (and, actually, explicitly from nothing else). Moreover, the examples of different resources listed in the preceding tables (7 through 13) provide more concreteness with regard to the more precise nature of these resources. However, even though the resource-advantage theory maintains that resources and nothing else determine the competitive advantage of any company, it may be argued that this theoretical perspective lacks one aspect with regard to competitive advantage: the products and services actually offered to customers and potential customers. I will discuss this argument next.

4.2.4 Supplementing the resource-advantage theory: products and services

Now, are the seven resource categories enumerated by the resource-advantage theory collectively exhaustive with regard to the sources of competitive advantage of a company and, therefore, exhaustive with respect to the domains of decision concerning competitive actions? Or, in other words, can a company choose to perform a type of competitive action, aimed at achieving or maintaining competitive advantage, which does not fall into one of the seven types specified by the resource-advantage theory of competition?

It turns out that a case can be made, according to which the seven categories specified by the resource-advantage theory are not collectively exhaustive, as Hunt and Morgan note: "[o]ur theory views resources as the tangible and intangible entities that enable a firm to produce efficiently and/or effectively a market offering that has value for some market segment or segments" (1995: 11). Therefore, two aspects are external to their resource-advantage theory of competition: 1. a market offering (i.e. a product or a service) and 2. (selection of a) market segment or segments to which that offering is provided. Alternatively, from a contrasting point of view, one might argue that a comparative advantage in resources *necessarily* results in comparative advantage in market offerings for the selected market segment[s] and therefore considerations concerning market offerings and market segment(s) can be ignored.

However, Falkenberg (1996) addresses this question by distinguishing between the resources (in his terminology 'inputs') and the market offering ('product/service offering') which is produced with those resources as depicted in the following figure.

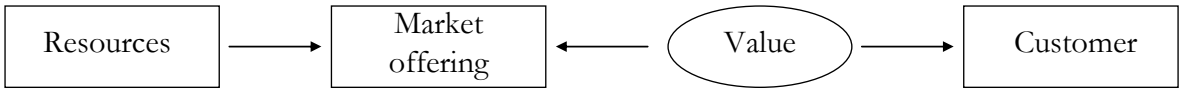

Figure 10. Resources and market offering

Now, how can the market offering be more precisely perceived? Or perhaps better, what in the market offering makes up the value which the (prospective) customer evaluates and contrasts against that of competing market offerings? In marketing, from which the resource-advantage theory partly is derived, it is customary to conceptualize the market offering (generally termed 'product', which also refers to services) as a 'bundle of attributes'. Indeed, Krishnan and Ulrich posit that a "useful representation of a product is a vector of attributes", and that "attributes are an abstraction of a product" (2001: 6). Therefore, introducing a new product or service to the market is, according to this view, introducing a bundle of features (of a product or a service[131]) to the market. Correspondingly, introducing a modified version of a product to the market is, again, introducing a bundle of features (though the bundle may closely resemble a prior bundle, that is, a prior product) to the market. In the case of, say, a mobile phone the relevant features could be, for example, battery life, size, weight, phone functionalities, and other functionalities (e.g. messaging, gaming, still imaging, video imaging, audio playback, productivity software, calendar, Internet access, etc.).

The above-exemplified features illustrate the components of value that a customer can derive utility from. But what about price? The notion of price is not a trivial one, for at least three reasons. First, price-related actions (usually decreasing price and increasing price) are present in several prior typologies of competitive actions and, therefore, of substantial interest in prior literature on competitive dynamics. Second, some authors on competitive dynamics have granted price-related actions a special status. For instance, Chen and MacMillan (1992) view price cuts as competitive actions which are more likely to attract responsive actions than any other type of competitive action because probably the response to a price cut is very straightforward to design and implement and because the signal a price cut carries is rather unambiguous to interpret. And third, most likely because of the previous reason, the extensive use of price cuts by competing companies can result in an intensified competitive setting, often called a 'price war' (see, e.g. Klemperer, 1989; Leblanc, 1996; Porter, 1985; Rao, 2000), which is usually disadvantageous for the companies involved in it.

According to Krishnan and Ulrich (2001), however, the price of a product or a service is just another feature of a product and subject to the same contemplation in a product development

[131] Henceforth, when I use the term 'product' it will refer to both products (in a traditional, often physical or tangible sense) and services and the distinction between products and services is no longer made unless specifically needed.

process as any other feature. The argument supporting this view offered by Erickson and Johansson (1985) maintains that even though price a customer pays for a product can be seen as a reduction of the wealth of the customer ('price as a constraint' view in their discussion), price can also transmit information to the customer about the quality of the product ('price as a quality signal'). They also demonstrate the existence of both views empirically[132].

Thus, since it is reasonable to perceive that resources do not equate with product attributes (and, thus, product value), in this study I will supplement the seven resource-related decision domains specified by the resource-advantage theory with an additional decision domain: that concerning product attributes. And, furthermore, as discussed above, I henceforth view price as one of the attributes a particular product has alongside other attributes.

Now, having discussed both of the premises for the typology of competitive actions to be developed in this study – the philosophical theory of action specifying the elementary actions and the resource-advantage theory of competition (with one supplemental category) specifying the decision domains of such actions – I may now turn my attention to integrating these perspectives into a tentative typology of competitive actions.

4.3 Typology of Competitive Actions: Integrating the Premises

As noted above, according to the philosophical theory of action, there are logically eight elementary actions:

1. Bringing about
2. Forbearing to bring about
3. Suppressing
4. Forbearing to suppress
5. Preserving
6. Forbearing to suppress
7. Destroying
8. Forbearing to destroy

These elementary actions are generic and therefore apply to all conceivable (substantive) varieties of human action, including competitive action as a particular variety of collective action. Therefore, due to this generic nature of the elementary actions, these action types also apply to all the domains of action by companies in a competitive setting. Thus, the elementary actions

[132] As the two views operate in opposite directions (i.e. 'price as constraint' implies that a higher price suppresses the willingness to purchase, whereas 'price as a quality signal' in contrast implies that a higher price encourages a purchase), Erickson and Johansson do not address the dynamics of this interplay in their study, but, nonetheless, highlight the importance of it by noting that "This raises questions for marketing practitioners. Can the positive effect increase on quality beliefs offset the negative influence on the consumer's wallet?" (1985: 199)

constitute the first dimension of the typology of competitive actions addressing the elementary nature of each competitive action.

Concerning the domains of action in a competitive setting, in turn, the resource-advantage theory of competition suggested that competitive advantage results from a comparative advantage in the resources of a company. Therefore, in a competitive setting in which a company seeks enhancement in its competitive position or tries to prevent the competitive position from worsening, the actions – competitive actions – concern the resources of the company since the comparative advantage in resources determines the competitive position (competitive disadvantage, competitive parity, or competitive advantage) of the company. The resource-advantage theory enumerates, as noted above, seven categories of such resources (Hunt: 128):

1. Financial resources
2. Physical resources
3. Legal resources
4. Human resources
5. Organizational resources
6. Informational resources
7. Relational resources

Moreover, as the discussion above suggested, as the marketplace position can not materialize without a product[133], an additional domain of action concerning products is needed. And, as a product can, according to an established practice in the marketing literature, be meaningfully conceptualized as a bundle of attributes (comprising all aspects of the product that are relevant for the customers including price), the additional domain of action is:

8. Product attributes

These eight categories of domains of action, I propose, constitute, building on the resource-advantage theory of competition, a jointly exhaustive set of domains of action in a competitive setting and, therefore, they jointly form the second dimension in the typology of competitive actions.

Now, as I have enumerated eight domains of actions in a competitive setting and, correspondingly, eight elementary actions which are each applicable to each domain of action, integrating these into a typology of competitive actions yields 64 (8 times 8) different types of competitive actions. And, moreover, as both of the theoretical perspectives are general in the sense that they are not specific to any industry or temporal or geographical setting, etc., the resulting typology, therefore, is general in the same sense.

[133] Recall that above I noted that 'product' can refer to a market offering of any kind: a physical product, a service, a combination of these, or any other kind of a conceivable market offering unless otherwise specified.

Without more rhetorical elaboration, the following table presents the resulting typology in graphical form.

Table 14. A typology of competitive actions

	Bring about	Forbear to bring about	Suppress	Forbear to suppress	Preserve	Forbear to preserve	Destroy	Forbear to destroy
Financial resources								
Physical resources								
Legal resources								
Human resources								
Organizational resources								
Informational resources								
Relational resources								
Product attributes								

Now, thus far in this second part of this study I have, generally speaking, reviewed prior typologies of competitive action and developed and proposed a new alternative such typology. Thus, a natural question most probably at this point will be: how does the proposed new typology compare to the prior typologies with regard to its coverage? Or, put differently, how do the action types specified by prior typologies map to the proposed new one? I will address this question next.

5 PRIOR TYPOLOGIES OF COMPETITIVE ACTIONS COMPARED WITH THE CURRENT TYPOLOGY

As noted above, in this chapter I will compare how the types of competitive actions in prior typologies of competitive actions map to the current proposed typology. The aim in doing so is to compare the coverage of the proposed typology in comparison to its predecessors. In addition to this, I will discuss which action types in prior typologies do *not* map to the proposed typology and why this is the case.

5.1 Placing Action Types in Prior Typologies in the Current Typology

With regard to comparing the coverage of competitive actions between prior typologies and the current proposed typology, a possible course of action could be to perform this comparison typology by typology, one at a time. However, as Appendices 1 and 2 enumerate 15 such prior typologies, used in 20 different studies, this would result in rather long-winded treatment.

Instead, I will next discuss the appearance of different types of competitive actions specified by the current proposed typology with regard to all the prior typologies. I will do this by considering the domain of action (e.g. financial resources) first, and by considering the elementary nature of the action (e.g. bring about) second. This particular order of comparison is warranted by the fact that some of the prior typologies consider the first aspect but do not explicitly address the second.

It must be born in mind that the comparison between prior typologies and the current one is possible, of course, only to the extent that prior authors have explicated the categories in their typologies. Even though this is the general norm, some studies have not articulated all their categories. Therefore, with respect to these categories, I can draw no definite conclusions. In other words, I must, in the comparison, rely on the information that the prior authors have explicitly provided.

Nonetheless, let me turn to the examination, first proceeding one by one through the domains of action. With regard to each domain, the purpose of the discussion is not to enumerate exhaustively all the different action types explicated in the prior typologies (as the typologies can be viewed in detail in Appendices 1 and 2) but instead to address two questions:

1. Is a particular domain of competitive action present in prior typologies? I.e. does one or more of the prior typologies acknowledge the domain of action?
2. If so, what elementary types of action, if any, have prior typologies specified with regard to this domain of action?

Financial resources. Recall that financial resources were earlier defined as all monetary resources (such as liquidity at hand, actual potential debt and equity, etc.) a company has access to (possesses or otherwise has at its disposal). Curiously enough, no prior study has incorporated in a typology of competitive actions such actions which explicitly concern the financial resources of a company either in industry-specific or in industry-independent form (even though some of the action types enumerated by prior studies may well have *indirect implications* with respect to financial resources). Thus, in short, competitive actions explicitly concerning financial resources seem to be absent in prior typologies.

Physical resources. Recall that physical resources were outlined to encompass plant, other real estate, raw materials, equipment, inventories and other similar physical entities a company possesses or otherwise has access to. Unlike financial resources, in several prior typologies, the importance of physical resources is, in a general level, acknowledged. For instance, Oliva et al. (1988) mention (actions concerning) "manufacturing efficiency", whereas Ferrier and his colleagues (Ferrier, 2001; Ferrier and Lee, 2002) exemplify "capacity-related actions" as types of competitive actions with regard to physical resources.

Then, with regard to the elementary nature of actions concerning physical resources, of those action types that do address this question more or less explicitly, nearly all are of the type 'bring about'. With regard to industry-invariant wordings, Ferrier et al. (1999), for example, explicate "new capacity additions" (bringing about the existence of new additional production capacity)[134], whereas Hopkins (2003) articulates "manufacturing (redesigning or moving manufacturing

[134] The assumption here is that the capacity is 'hardware' by its nature. In contrast, if the focal company is a pure service company, it could be more appropriate to include this action type under human resources. However, if this were the case, calling knowledgeable employees (such as, say, lawyers) 'capacity' may raise a few eyebrows.

plants)" (bringing about a change in the nature or location in manufacturing resources)[135] and "new technology (utilizing new product or manufacturing technology)" (bringing about that a particular technology is utilized by the company)[136]. Furthermore, Offstein and Gnyawali (2005a, 2005b) mention "capacity increase" and "opening new production unit" (in both cases bringing about new production capacity).

Similarly, with regard to industry-specific exemplifications, corresponding actions are, in the context of the airline industry, "acquisition of a new plane" (bringing about increase in flight service capacity) (Miller and Chen, 1994), and, in the context of pharmaceutical industry, "acquiring new technology for drug discovery" (bringing about that new research and development technology is in use)[137] and "acquiring new technology for drug manufacturing" (bringing about new technology in manufacturing is in use)[138] (2005a, 2005b).

The only exception to 'bring about' type of actions is "divestment of other assets" by Offstein and Gnyawali (2005a, 2005b), which is further specified to be about "sale or closure of non-drug business units (e.g., real estate or property divestment)" which is of the type 'destroy' (destroying the existence of ownership of certain physical resources).

In sum, the domain of action concerning physical resources has been acknowledged by many prior studies, but as far as the elementary type of such actions is concerned, the majority of the actions are of the type 'bring about', with one exception, which is of the type 'destroy'. Therefore, in prior typologies there is no evidence concerning forbearances of any kind with regard to physical resources.

Legal resources. Recall that legal resources were earlier defined as (usually intangible) resources which are legally protected against acquisition, such as patents, trademarks and copyrights. Now, in general the domain of action concerning legal resources is included in some prior typologies. For instance, Boyd and Bresser (2004a, 2004b) include "legal actions" in their typology. Similarly, Ferrier et al. (1999) mention "new legal actions".

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[135] With regard to moving a manufacturing plant, another interpretation could be that it involves two distinct and different actions: both closing an existing plant (destroying this plant to be in operation) and opening a new plant (bringing about this plant to be in operation).

[136] However, the product technology component of this action type may well fall under the category of product attributes.

[137] Here the action "acquiring new technology for drug discovery" does not fall under the domain concerning informational resources (i.e. information concerning technology) because Offstein and Gnyawali specify that this action type is about "acquiring and *installing* any new technology useful in the drug discovery process" (italics mine). Namely, because the new technology needs to be installed, this implies that the technology takes the form of physical equipment or something similar. Moreover, it is described to be acquired, not developed (in the company).

[138] The interpretation here is the same as in the case of "acquiring new technology for drug discovery", as Offstein and Gnyawali describe this action type to be about "acquiring and *installing* new technology aimed primarily at improving the manufacturing or production process" (italics mine). Therefore, this translates into a capacity-related action.

However, only Offstein and Gnywali (2005a, 2005b) explicitly address the question of the elementary nature of the actions concerning legal resources. In their typology they have "acquiring intellectual property rights"[139] (bring about the availability of such intellectual property to the company), "FDA filing"[140] [141] (bringing about that there is an application in the process of the FDA), "conducting clinical tests"[142] (bringing about the necessary tests without which an approval for a new pharmaceutical [a legal resource] can not be obtained), "patent filing" (bringing about that there is a patent application in the process of the patent authorities), "lawsuits against competitors", and "filing of patent infringement" (in both cases bringing about that there is a lawsuit against a competitor in the judicial process)[143].

Therefore, with regard to prior typologies of competitive actions the domain of legal resources is present but the only elementary nature of action explicitly put forth is 'bring about'.

Human resources. Recall that human resources were defined to be skills, knowledge, experience, insight and other similar assets that are attributable to individual employees. In some of the prior typologies, namely those of Hopkins (2003) and Offstein and Gnyawali (2005a, 2005b), the domain of actions concerning human resources is, in general, present. For instance, Offstein and Gnyawali mention, under the higher-level category of "management/human resources", an action type "major recruiting/selection initiative"[144].

Then, with respect to the elementary nature of such actions, the elementary types 'bring about' and 'destroy' are present. First, with regard to 'bring about', Offstein and Gnywali (2005a, 2005b) mention, in addition to "major recruiting/selection initiative" (bringing about the employment of new employees) also "major training/development initiatives" (bringing about new knowledge and skills for the employees). Second, concerning 'destroy', Offstein and Gnywali explicate "downsizing/layoffs", whereas Hopkins (2003) mentions "organizational restructuring (downsizing or downscoping)" (in both cases destroying the employment of certain people)[145]

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[139] They further specify that this action type stands for "acquiring the rights to intellectual property developed outside the firm (e.g., licenses, copyrights, patents, and trademarks)".

[140] FDA stands for the Food and Drug Administration of the USA, which regulates, among other things, the sales and usage of pharmaceuticals in the USA.

[141] They further specify that this action type stands for "the filing of a new drug with the FDA".

[142] They further specify that this action type stands for "performing clinical tests that are mandated by the FDA to achieve FDA approval".

[143] Another reading of these two actions could be that they are of the type "suppress" (suppressing a competitor to engage in a particular behavior) or of the type "destroy" (making a competitor to discontinue a certain behavior). However, with a closer look these actions are not about suppressing or destroying something but about *trying* to suppress or destroy that – the outcome of the judicial process is not certain. But what is certain about these actions is that they *do* bring about the lawsuit being in the judicial process – that is certainly known about these actions.

[144] They further specify this to designate "specific hiring practices aimed at improving the competitiveness of the firm (e.g., hiring 3000 representatives for launching of a new drug)".

[145] Another reading of "organizational restructuring", taking the form of downsizing or downscoping, could be that it concerns organizational resources (abandoning or revising certain routines or functions) or even physical resources (closing or otherwise getting rid of certain production facilities). However, usually downsizing or downscoping first and foremost concerns the employee base of a company and, more

In sum, the domain of actions concerning human resources is present in some prior typologies of competitive actions but explicitly includes only two out of eight elementary types: 'bring about' and 'destroy'. Again, the notion of forbearance is not present in any of the prior typologies in terms of human resources.

Organizational resources. Recall that organizational resources were defined to be the properties of an organization (as a whole) such as organizational routines, culture, control systems, reputation and other similar resources which allow the organization to operate efficiently and effectively. Actions concerning organizational resources are present only in the typology of Offstein and Gnyawali (2005a, 2005b). Such actions include "production decrease"[146] (destroying certain activities which have produced [or have been capable of producing] a certain amount of end products), "operational efficiency enhancement"[147] (bringing about an improvement in some organizational process[es]), "procurement"[148] (bringing about a change [probably an improvement] concerning organizational processes regarding procurement), "e-commerce initiative"[149] (bringing about a new process with which to interact with suppliers and other such parties) and "structural changes"[150] (destroying certain organizational structures).

To summarize, with regard to organizational resources, one prior typology has taken this domain of action into account but, again, only the elementary types 'bring about' and 'destroy' are present, which, of course, implies that the notion of forbearance, in any form, is not present in any of the prior typologies.

Informational resources. Recall that informational resources were outlined to include knowledge about market segments (i.e. customers), competitors, technology, and other similar knowledge assets. Actions concerning informational resources are explicitly present only in the typology of Offstein and Gnyawali (2005a, 2005b) in the form of "developing new technology for drug discovery"[151] (bringing about the existence of new knowledge concerning technology for drug

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specifically, diminishes the number of employees and, thereby, lowers the costs associated with employees. And, furthermore, Offstein and Gnywali (2005a, 2005b), on their part, have explicitly bundled downsizing and layoffs together.

[146] They further explicate that such an action is does not involve change in the (physical) capacity of production.

[147] They further specify that actions of this type are actions "such as re-engineering, total quality management, business process improvement, and enterprise resource planning that are aimed at enhancing operational drug making efficiency. This action does not involve the implementation of technology; rather it involves the alteration of processes."

[148] They further specify that actions of this type are "associated with purchasing of inputs (e.g., qualifying new suppliers, monitoring of supplier performance, machinery, and equipment) or of general materials (e.g., computers)".

[149] They further specify that actions of this type are about "utilizing the internet or web into business operations (e.g., business to business E-commerce interaction)".

[150] They further specify that actions of this type are "organizational structure-based actions such as elimination of divisions, departments, hierarchies that are focused on achieving organizational efficiency"

[151] Further specified as "the in-house development of technology that aims to improve the firm's ability to discover new drugs".

discovery), "developing new technology for drug manufacturing"[152] (bringing about the existence of new knowledge concerning drug manufacturing), "performing in-house scientific trials"[153] (bringing about the existence of new knowledge about the properties and effectiveness of existing products) and "increase in R&D investment"[154] (bringing about the availability of additional resources for accumulating technological knowledge)[155].

Therefore, once again, the domain of action concerning informational resources is present in prior typologies – although in only one of those – but the only elementary nature explicitly addressed is 'bring about'. Therefore, no notion of forbearances concerning actions related to informational resources is present in any of the prior typologies.

Relational resources. Recall that relational resources were defined as the relations between the organization (as a whole) and its stakeholders such as competitors, suppliers and customers (the relations, moreover, must be beneficial for the company – otherwise such relations would not count as resources, but rather non-resources [not beneficial nor harmful] or contra-resources [harmful]). Most prevalent types of competitive actions concerning relational resources in prior typologies are actions concerning marketing and, therefore, the relationship between a company and its customers. For instance, Smith et al. (1991) have included "new promotional actions" in their typology whereas Chen et al. (1992) have settled more generally for "promotion". Similarly, Chen and MacMillan (19929 have included "copromotion with nonairlines" in their typology, whereas Miller and Chen (1994) have included "special fare advertisement" and Ferrier and his colleagues (Ferrier, 2001; Ferrier and Lee, 2002) have exemplified "marketing actions". In a similar vein, also actions concerning co-operation (building relational resources with a competitor or another stakeholder of a company) in general are present in prior typologies. For instance, Miller and Chen (1994) typify "cooperation with nonairline" and "feeder alliance" whereas Chen and Hambrick (1995) exemplify "cooperation with another major airline". Furthermore, Hopkins (2003) has extended the notion of relational resources to political stakeholders, since he has included "government/legal (lobbying the government for legislative changes)" in his typology. Moreover, Offstein and Gnyawali (2005a, 2005b) have extended this

[152] Further specified as "the in-house development of technology that aims to improve the drug manufacturing/production process"

[153] Further specified as "conducting or announcing the completion of scientific research within the firm on a product that is currently in use (e.g., a firm conducts its own internal trial); these trials are discretionary and are not to be confused with FDA mandated clinical trials"

[154] Further specified as "an increase in the amount of resources devoted to R&D (can include financial, capital and human forms of investment)"

[155] Another reading with regard to this action type could be that it is the nature of the investment (finance, capital or human) that determines the appropriate domain category for the action type. However, as the action type can involve any combination of these investment types, a more appropriate interpretation is that it is related to the accumulation of informational resources (knowledge about technology). It may also be argued that the increase in R&D investments *necessarily* translate in increased level of knowledge resources, but, in any case, at least it translates in the increase in the *activities* which have to do with the accumulation of such resources.

notion to include other important stakeholders in their study context (physicians and nurses in the context of the pharmaceutical industry) with their type "after sales service"[156] [157].

Now, what elementary natures of action types do prior typologies include with regard to relational resources? First, they do include actions of the type 'bring about'. For example, Chen and MacMillan (1992) exemplify "increase in commission rate for travel agents" (bringing about an increase in the incentives for travel agents to sell flight services of a particular company; a relational resource for the company), and Miller and Chen (1994) typify "frequent flyer program" (if this is to be read "*introduction of a* frequent flyer program", this translates into bringing about the existence of a particular type of incentive for a customer to be loyal to a particular company; a relational resource for the company). Similarly, an action type "product announcements" by Young et al. (1996) (in contrast to "product introductions", which they also have in their typology) brings about a state of affairs concerning the relational resources of a company (e.g. prospective customers can delay their purchasing decision because they are made aware about a forthcoming attractive product). Furthermore, action types exemplified by Hopkins (2003) "outsourcing (of products or components)" and "new distribution method (changing how the products are wholesaled or traded)" can be interpreted to fall under this category, since they bring about a new (entirely new or qualitatively new) relationship between a company and its supplier(s) and distributor(s), respectively.

In the typology of Offstein and Gnyawali (2005a, 2005b), the type of 'destroy' concerning relational resources is present in their action types "customer alliance"[158], "competitor alliance"[159] and "supplier alliance"[160], as all those categories also include the dissolution of the alliance (destroying a relational resource)[161].

Therefore, to summarize, the domain of action with regard to relational resources is present in prior typologies in general, but the elementary natures explicitly taken into account in prior typologies include only 'bring about' and 'destroy'.

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[156] Further specified as actions associated with providing service to enhance or maintain the value of the product (e.g., training physicians on the side effects of the product or teaching nurses how to properly administer the product).

[157] Another reading of this action type could be that it is about product attributes (if the enhanced knowledge concerning proper administration of a pharmaceutical product enhances the value of a 'total product' in the eyes of a patient). However, here this type of action is viewed more as a marketing action (as the label "after sales service" suggests) the aim of which is to encourage physicians and nurses to use a pharmaceutical product of the company and not one of a competitor once they are familiar with it.

[158] Further specified as "the creation or *dissolution* of an alliance with a downstream partner (e.g., hospitals, insurance companies, HMOs, or pharmacies)" (italics mine).

[159] Further specified as "the creation or *dissolution* of an alliance with a horizontal partner" (italics mine).

[160] Further specified as "the creation or *dissolution* of an alliance with an upstream partner" (italics mine).

[161] However, it may be argued that if a company ends up dissolving an alliance, it may have turned into a contra-resource for the company. However, it may also be the case that a dissolved alliance was still beneficial for the company but a more beneficial opportunity came about (e.g. a prospective and more lucrative alliance with another similar stakeholder) and this resulted in dissolving the alliance.

Product attributes. Recall that the resource enumeration put forward by the general theory of competition remains silent concerning what the resources are used for. Therefore, a supplemental domain of action, one concerned with product attributes (including price as one of the attributes) was adopted. With regard to prior typologies, this is probably the most commonly addressed domain of action of them all. First, pricing actions are commonly mentioned. For example, on a general level, Ferrier and his colleagues (Ferrier, 2001; Ferrier and Lee, 2002) mention "pricing actions", whereas Chen, Smith et al. (1992) exemplify "price changes". On a more specific level, Miller and Chen (1994) typify both "price cut" and "price increase", as do may other prior authors. There are also more specific pricing actions like "entry price cut" by Miller and Chen (1994)[162]. Second, other product attribute-related actions are also present in prior typologies. For example, Chen et al. (2002) exemplify "service improvement" and "introduction of a new service" as such actions.

Then, with regard to the elementary nature of product attribute-related actions in prior typologies, there are, as one probably might expect by now, several actions of the type 'bring about'. For example, Chen and Miller (1994) exemplify such actions as "increase in daily departures" (bringing about the availability of some new flight services in a quantitative sense), "entry into a new route" (bringing about the availability of flight service between two destinations), whereas Miller and Chen (1994) have in their typology an action type "ticket purchase requirement" (if this is to be read as "*introduction* of a ticket purchase requirement, it translates into bringing about a change in the nature of service). Correspondingly, the action type "changing classification of product"[163] by Offstein and Gnyawali (2005a, 2005b) is 'bring about' by its nature (bringing about a new classification for an existing product[164]). Similarly, in prior typologies there are also actions which are 'destroy' by their elementary nature. For example, Chen and MacMillan (1992) exemplify "exit from a route" (destroying availability of flight service between two destinations) and "decrease in daily departures (destroying the availability of some existing flight services in a quantitative sense) as such actions. Correspondingly, action types "withdrawal of product/service"[165] and "exit from product/market"[166] by Offstein and Gnyawali (2005a, 2005b) are 'destroy' by their elementary nature (destroying the availability of a product for customers to purchase or destroying the presence of a company in a particular product category or market, respectively).

Therefore, to summarize, in prior typologies the action domain concerning product attributes is strongly present. However, as in the case of several other action domains discussed above, only

[162] This, in turn, implies that their other action type "price cut" probably means "price cut *other than entry price cut*".

[163] Further specified as "declassifying a drug from prescriptive to over-the-counter (OTC) status, or vice versa".

[164] Given that the new classification is dependent only on the actions of the company itself (thus making this action type a proper intentional action) and not subject to regulatory approval, for instance.

[165] Further specified as "withdrawing a product or service while remaining in a product/market segment".

[166] Further specified as "withdrawing from a product/market segment in which the firm was previously a participant".

elementary types 'bring about' and 'destroy' are explicitly addressed. Therefore, no forbearance in any form is present in those typologies with regard to product attributes.

Now, it must be born in mind that in the preceding discussion not all the action types enumerated by all the different prior typologies were present in the text, for three reasons. First, especially in the aviation-related typologies, some action types were present in several typologies either in identical or essentially similar wordings, and, therefore, to avoid repetition and for space concerns, not all duplicate or near duplicate action types were explicitly quoted. Second, some action types (for instance, actions concerning advertising and pricing) were in various wordings present in several typologies and it seems sufficient to address those types with one or two examples (since the content of, e.g. a price change does not change in essence if the specific wording is altered). And third, if the reader desires to review all the action types in the prior typologies *vis-á-vis* the current proposed typology, all the prior typologies discussed in this study are included in Appendices 1 and 2.

However, in prior typologies there are also some action types that some of these typologies exemplified, but which do not map on the current proposed typology. There are two main reasons for this. First, some action types are (according to their precise wordings) ambiguous to such a degree that no determinate decision concerning their domain of action can be made. Second, some other action types, in fact, are not (intentional) actions at all. Let me now briefly consider each of these aspects in turn.

5.2 Ambiguity in Some Action Types in Prior Typologies

First, in aviation-related typologies (see Appendix 1) there are three ambiguous action types:

1. "Expansion into a new market" (Chen et al., 1992)
2. "Hub creation" (e.g. Chen and MacMillan, 1992)[167]
3. "Merger and acquisition" (e.g. Chen et al., 1992)[168]

Let me discuss each of these three types in turn.

Expansion into a new market. How this action type should be perceived with regard to domains of action depends on the details of such an action. First, how is the market expansion done in the first place? For instance, Carman and Langeard (1980) view that market expansion can be done by extending the presence of a company to a new *geographical area* (either within the country of origin or to another country) or to a new *sociodemographic segment*. Concerning geographical expansion, in turn, there are several alternatives for a company. According to Hitt et al. (2005), this can be done by exporting (with distribution agreements in the target area), licensing (allowing production in the target area for a premium), strategic alliance (working jointly with a

[167] Also "new hub creations" (Smith et al. 1991), or "hub creation and major expansion" (Chen and Miller 1994)
[168] Also "mergers" (Smith et al., 1991), or "intraindustry merger and acquisition" (Miller and Chen, 1994)

company in the target area to produce and supply a product), acquisition (acquiring a company in the target area), or establishing a new wholly owned subsidiary[169]. Moreover, this can be done with or without a new product. Correspondingly, a new sociodemographic market segment can be targeted with a new product (which is particularly suitable for that specific market segment) or without it (merely through targeted advertising). Even though some of the preceding notions are not straightforwardly applicable to the aviation industry (consider, e.g. exporting flight services), still some additional information would be called for before "expansion into a new market" can be determined to fall under a certain domain of action. For instance, if expansion into a new market is done through geographical expansion, it can designate an action concerning relational resources (e.g. strategic alliance with another airline, which can be the case since the *explicated*[170] action types of et al. (1992) do not include such an action) or product attributes (e.g. new routes to and from that geographical area, which, again, their *explicated* action types do not include). Or, if expansion into new market designates a new sociodemographic market segment, this can involve an action concerning relational resources (e.g. advertising to a new market segment) or an action concerning product attributes (e.g. introducing a new low-cost flight service concept). In any event, more information would be required in order to determine the appropriate domain of action with regard to "expansion into a new market".

Hub creation. By hub in an aviation setting is usually meant a central airport in which an airline operates. Moreover, a particular airline can have one or more such hubs in which it operates. However, if an airline creates (or selects) a new hub in which it operates, this can be done at least for two reasons. First, it may create (select) a hub with an improvement in its flight route network in mind. In this case the action relates to the flight service assortment and availability which, in turn, designates that the action is concerned with product attributes (new or more convenient routes for passengers and cargo). Or secondly, an airline may create (select) a hub because the particular airport offers an attractive assortment of ground services (such as passenger management, catering, airplane fueling and cleaning, etc., which usually are provided by a company or companies independent of the airline). If this is the case, the domain of action is concerned with relational resources (relations of the airline with the ground service provider[s]). Therefore, in order to determine the appropriate domain of action for "hub creation", some more information would be called for.

Merger and acquisition. Mergers and acquisitions are perhaps the most difficult to tackle of the three aviation-related ambiguous types of action. To begin with, the properties of the two companies should be known, at least to some extent. For instance, is the target company (which is being acquired) equal in size or substantially smaller? On the one hand, if the target company is substantially smaller, then what is, in effect, being acquired? For instance, if the target company possesses some advanced technological know-how and is being acquired (because of that know-how), what is being essentially acquired is technological knowledge, and, therefore,

[169] With regard to their terminology, they discuss modes of *international* entry. However, the same modes are generally also applicable if a company is expanding to an unfamiliar geographical area within a (relatively large) country.

[170] The typology of Chen et al. (1992) encompasses five explicated types and 11 types that are not articulated.

the action is concerned with the informational resources of the acquiring company. Therefore, in the case of a substantially smaller company being acquired, the essential reason for the acquisition should be known in order to meaningfully determine the domain of action. On the other hand, if the company being acquired is about the same size (and, furthermore, also similar in other properties), designating a merger of equal companies, the situation is very much different. In this case, it may be impossible to assign the action meaningfully into any domain of action discussed above, since the action essentially designates that the two merging companies cease to exist and a new company is born. Therefore, in this case it may be not appropriate to perceive the action to be *any* kind of a competitive action because the action is about ceasing to exist and coming into the existence of actors rather than something a particular actor just does.

In those typologies that do not concern the aviation industry there are ambiguous action types as well – four, to be precise:

1. "Geographic expansions" (Hopkins, 2003)[171]
2. "Mergers and acquisitions" (Boyd and Bresser 2004a,2004b)
3. "New signaling actions" (Ferrier et al., 1999)[172]
4. "Increase in vertical integration" and "increase in horizontal integration" (Offstein and Gnyawali, 2005a, 2005b)

As I have already discussed the two first action types, geographical expansion, and merger in the context of aviation industry-related typologies, I will not discuss these again. Instead, I will focus on the latter two.

New signalling actions. "New signalling actions" used by Ferrier and his colleagues (e.g. Ferrier et al., 1999), in a few different wordings (e.g. Ferrier and Lee 2002; Lyon and Ferrier 2002), warrants closer inspection. The obvious question is, of course, what is the precise nature of the signal(ling)? In other words, what is the company signalling with this action? Lyon and Ferrier shed light on this issue, as they have explicated "coding keywords" (2002: 458) for this action type. The keywords[173] are intended to capture "some strategically salient statement" (ibid.). Furthermore, Lyon and Ferrier provide an example of this action type: "Reebok's Fireman **vows** to retake lead in athletic shoe market by end of 1995" (ibid., bolding in original). Now, considering these aspects and the keywords provided (see footnote) together, it seems that "new signalling actions" are about three things. First, through this action a company voluntarily releases information. Second, this action type seems to be concerned with the future (keywords such as "promise", "targets"). And third, this action type seems to concern the intention(s) or the goal(s) of the company (e.g. "vows to retake lead", "seeks", "aims"). In other words, "new signalling actions" seem roughly to be about a company releasing information about its future

[171] Also "geographic growth" (Boyd and Bresser 2004a, 2004b)

[172] Also "overt signaling actions" (Ferrier 2001; Ferrier and Lee 2002), or "signaling actions" (Ferrier Fhionnlaoich et al. 2002; Lyon and Ferrier 2002; Ferrier and Lyon 2004)

[173] The keywords Lyon and Ferrier enumerate (2002: 458) are: "vows, promises, says, seeks, aims, declares, to focus on, targets *etc.*" (italics mine).

goals and perhaps about measures it is planning, or has planned, to take in order to reach those goals.

If this potentially coarse-grained interpretation is accepted, two different conclusions are possible. First, it may be that "new signalling actions" are not competitive actions at all. After all, a company states its future goals, and perhaps additionally, some prospective courses of action, both of which may or may not materialize in the future. Therefore, there is no certainty whether or not the content of the statement will actually take place. Or second, it may be that "new signalling actions" indeed are competitive actions which have to do with the relational resources of a company. This interpretation is supported by the reasoning according to which there is no particular point in releasing information *voluntarily* (supported by the alternative wording "*overt* signalling actions" (Ferrier, 2001; Ferrier and Lee, 2002, italics mine) if there is no intention to influence one or more stakeholders of a company. Therefore, if the second interpretation is accepted, "new signalling actions" are about bringing about some state of affairs (e.g. new information is available for all interested parties to contemplate) with regard to relational resources. In any case, if "new signalling actions" are to be considered as competitive actions, their elementary nature seems to be 'bring about'.

Increase in vertical integration/increase in horizontal integration. To begin with, let us examine more in detail what Offstein and Gnyawali (2005a, 2005b) mean by these action types. By increase in vertical integration they understand "the acquisition or creation of an owned unit or joint venture (upstream or downstream) that increases the firm's extent of vertical integration (e.g., firm purchase of pharmacies)". By increase in horizontal integration, in turn, they understand "acquisition of any drug company, drug manufacturing facility, drug testing company, or R&D unit".

Now, at least two aspects require further clarification if the domain of action, as discussed above, is to be determined. First, it should be known *how* the vertical or horizontal integration is carried out. There seem to be several alternatives for this, as Offstein and Gnyawali describe: acquisition of another company, creation of an owned unit (i.e. creation of a subsidiary), creation of a joint venture, acquisition of a part of a company, or acquisition of a particular facility. Second, it should be known, as discussed in the case of mergers and acquisitions, above, what the essential *content* of vertical or horizontal integration is? As Offstein and Gnyawali exemplify, the content can be, for example, a pharmaceutical production facility (which would suggest the content dealing with physical resources), or a R&D unit (which would suggest the content being about informational resources; knowledge about technology). In any case, the elementary nature of the action seems to be 'bring about'.

Thus, even though the elementary action types of many of the ambiguous action types in prior typologies are relatively straightforward to determine, the domains of actions in all cases either require further information in order to arrive at a reasoned conclusion, or necessitate certain (perhaps bold) assumptions to be made. In either case, with regard to the original wordings of

these action types, it remains more or less uncertain how such action types should be mapped onto the proposed new typology.

5.3 Non-Actions in Prior Typologies

The typologies of Offstein and Gnyawali (2005a, 2005b) in particular seem to contain also other ambiguous action types which, to my mind, turn out to be non-actions. In other words, those types do not involve a proper *intentional* action (as specified by the philosophical theory of action). These actions are:

1. "Discovery of a new molecule"[174]
2. "Discovering new application of existing drug"[175]
3. "Achievement of major endorsements"[176]
4. "Securing FDA approval"[177]
5. "Securing patent approvals"[178]
6. "Securing other regulatory approvals"[179]

These types fall into two broad categories: the first two are about discovering something whereas the latter four are about gaining or receiving something. Let us discuss each of the two categories in turn in order to see why these types do not qualify as proper intentional competitive actions.

Discovering. On the one hand, discovering fulfills the criteria of being an action because it is an achievement (an event lacking temporal duration, being a culmination point in itself; see sub-chapter 2.2). However, on the other hand, discovering (as Offstein and Gnyawali [2005a, 2005b] explicitly specify their types) does not fulfill all the criteria for *intentional* action as specified in sub-chapter 2.3.2 Namely, discovering a new molecule or a new application of an existing drug does not fulfill the sixth criteria for intentional action[180]. In other words, a company can (most probably) not intentionally discover a new molecule or a new application of an existing drug, say, next Monday or any other specific point of time, and then proceed to make this discovery precisely at that point of time and precisely the way it planned. Instead, a company can *try* to

[174] Further specified as "a significant scientific discovery in which the firm discovers a new molecule".

[175] Further specified as "an action in which a firm determines that an existing drug addresses a distinctly separate condition or population subgroup (e.g., drug previously thought to lower cholesterol also lowers blood pressure, drug previously used for men is found useful for women)".

[176] Further specified as "applying and gaining the endorsement of the firm's product by a major organization (e.g., an HMO or physicians' organization) or a famous person (e.g., professional athlete)".

[177] Further specified as "gaining favourable FDA approval to manufacture a drug for public use".

[178] Further specified as "earning patent rights by the United States Patent and Trademark office".

[179] Further specified as "any other regulatory approval, other than FDA approval, such as approvals from the Federal Trade Commission, international regulatory agencies, regulatory bodies from other countries (e.g., the European Union or World Health Organization)"

[180] Defined as "At the time of actor's actual involvement in performing A at t, the process indicated with significantly high probability by actor's on balance evidence at t as being at least partly constitutive of his performing A at t does not diverge significantly from the process that is in fact constitutive him performing A at t" (see sub-chapter 2.3.2).

discover a new molecule or a new application of an existing drug, say, next Monday, but it is extremely likely that the very nature of discovery includes uncertainty to such a degree that a company can not plan the discovery and execute that plan to make the discovery as originally intended. Therefore, I do not see discovering, as specified by Offstein and Gnyawali, as proper competitive action because it does not meet all the criteria for intentional action.

Gaining and receiving. In the examples put forward by Offstein and Gnyawali (2005a, 2005b), a company 1. applies and gains an endorsement of a product by a major organization or a famous person ("achievement of major endorsements"), 2. gains favorable FDA approval to manufacture a drug, 3. earns patent rights by the US Patent and Trademark office, or 4. gains a regulatory approval from some other regulatory body than FDA. The reason why these actions are not *intentional* actions is rather straightforward. Whether or not a company gains endorsements, patent rights, or approvals does not depend on the intentions and actions of a company in the first place. Instead, whether or not a company gains these things depends essentially from the actor which *grants* these things (e.g. the FDA). Put simply, a company can not choose to have a particular permit, but the actor which can grant (or forbear from granting) the permit can choose to do so. All a company can do is to *apply* for an endorsement, an approval or a patent right (and, moreover, can perhaps, at best, affect the process in one way or another). After all, at least in principle organizations being capable of making such grants, like regulatory bodies, should, in most cases, reach their decisions independently of parties applying for the grants (and, for that matter, any other parties having a vested interest in the decision). Nonetheless, a company can, of course, choose whether or not to *accept* an endorsement, an approval or a patent right *once it is granted.* However, a company can not, in principle, choose whether or not to *gain* such things. Therefore, I do not see actions concerning gaining and receiving as proper competitive actions because such actions do not meet all the criteria for intentional action.

5.4 Prior Typologies and the Current Typology Compared: Conclusion

To conclude the comparison between prior typologies of competitive action and the current proposed typology, the following table presents the preceding discussion in graphical form, illustrating how the action types in prior typologies map on the current proposed typology. In other words, the table illustrates which types specified by the proposed typology were found to be present in prior typologies and which were not.

Table 15. Prior typologies vs. the current proposed typology of competitive actions

	1 Bring about	2 Forbear to bring about	3 Suppress	4 Forbear to suppress	5 Preserve	6 Forbear to preserve	7 Destroy	8 Forbear to destroy
A Financial resources								
B Physical resources								
C Legal resources								
D Human resources								
E Organizational resources								
F Informational resources								
G Relational resources								
H Product attributes								

As becomes evident from Table 15 above, out of 64 types of competitive actions enumerated by the current proposed typology, only 12 (18.75%) were explicitly present in the prior typologies. These cells are marked with darker gray in the table. Put another way round, 52 types (81.25%) were not explicitly present in prior typologies. Furthermore, all of these 12 actions, which were detected in prior typologies, are either of the elementary type 'bring about' (7), or of the elementary type 'destroy' (5). Therefore, two other 'positive' (or 'active') actions (in contrast to forbearances) 'suppress' and 'preserve' were not explicitly present in any prior typology, regardless of the domain of action.

Moreover, what is perhaps striking is that no form of forbearance is explicitly present in any prior typology whatsoever. In other words, no prior typology of competitive actions explicitly takes into account the fact that a company can *intentionally choose not to perform a certain action* which, nonetheless, may be rather wise from time to time.

However, this is not to say that the actions that were not *explicitly* present in the prior typologies are not *implicitly* captured by those. For instance, the action type "promotion" (Chen and Hambrick, 1995), a type concerning the domain of relational resources, may also include such types as, for example, discontinuing an advertising campaign (destroying a state of affairs concerning relational resources), forbearing to discontinue an advertising campaign (even though, for instance, some public authority demands it; forbearing to destroy a state of affairs concerning relational resources), forbearing to launch an advertising campaign (because, for instance, it is heavily opposed by some customer activist organizations; forbearing to bring about a state of affairs concerning relational resources), and so on. For this reason the cells concerning the domain of relational resources that are not marked with dark grey (explicitly present in the prior typologies) are marked with light grey (implicitly present) The same is true for the domains concerning physical and legal resources, and product attributes in which forbearances may be present, but this can not be determined with certainty.

Perhaps the most striking finding, however, in addition to the complete absence of explicit incorporation of forbearances, is that the domain concerning financial resources was not, either explicitly or implicitly, present in any of the prior typologies. In other words, no prior typology acknowledged that actions concerning financial resources could constitute competitive actions.

Given the results of this comparison, and even independently of them, it may be rather tempting to next ask how the proposed typology would be applicable in an empirical research setting. In other words, how does the proposed typology work if it is to be used in empirical research? After all, all the prior typologies have been used (and, no doubt, developed primarily in order to be used) in empirical research. Because the proposed typology is, indeed, a typology (i.e. a theoretically derived classification scheme), it is, of course, possible to say that addressing this question is not inevitable, because typologies, after all, enumerate *theoretically* derived ideal types of research subjects which are not expected to surface empirically as pure ideal types, and, therefore, evaluating the merits of any typology should centre around its theoretical premises and the derivation thereof. However, it is possible to counter this argument by noting that, in the

end, if a typology is to be widely used, it must be proven to also be empirically applicable, because otherwise the typology is likely to remain as a mere theoretical exercise. Moreover, I stated in the very beginning of this study that one of the central aims of the typology to be developed is that I intend it to assist subsequent research on competitive dynamics. Thus the empirical applicability of this typology is, indeed, a relevant question. Therefore, next I will briefly illustrate the applicability of the typology in an empirical research setting. However, my aim in doing so is not to *demonstrate* (in a strict positivist sense) the applicability, but rather to *see how* the proposed typology is applicable in an empirical research setting.

6 ILLUSTRATION OF EMPIRICAL APPLICABILITY OF THE TYPOLOGY

I will conduct the illustration by following very closely the established empirical method in competitive dynamics in order to see how the proposed typology can be applied in a typical empirical research setting. However, before embarking on this task, let me first briefly discuss the typological approach and its relation with empirical research in general. This discussion will provide insights for reflecting the findings of the illustration (and, moreover, for reflecting the findings of any empirical study using a typological approach in competitive dynamics or in general).

6.1 On Typologies and Empirical Research in General

As commonly attested (Bailey, 1994; Doty and Glick, 1994), typologies incorporate 'ideal type' constructs, as specified by Weber (1949)[181]. Moreover, in the specific context of organizational typologies, Doty and Glick note that

> "…ideal types represent organizational forms that *might exist* rather than existing organizations. Thus empirical examples of ideal-type organizations are expected to be very rare or non-existent." (1994: 233, italics mine)

[181] In Weber's own words: "An ideal type is formed by the one-sided accentuation of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent concrete individual phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified analytical construct (Gedankenbild). In its conceptual purity, this mental construct (Gedankenbild) can not be found empirically anywhere in reality. It is a utopia. Historical research faces the task of determining in each individual case the extent to which the ideal-construct approximates to or diverges from reality, to what extent for example, the economic structure of a city is to be classified as a city economy." (1949: 90, terms in parentheses in original).

Thus, the central original insight of Weber (1949) is that ideal types, specified by a typology (that is, by any typology), are not to be found (at least commonly) empirically in their purest form, and therefore empirical research has to settle with specimens which only more or less resemble the ideal types (Bailey 1994: 17). This, however, is not, by any means, to say that typologies are useless or inherently flawed with regard to empirical research, but only to underscore the fact that real-world research subjects are expected to deviate to some degree from the pure (in a theoretical sense) ideal types specified by a typology, which is an inherent feature in any typological approach (Bailey, 1994; Weber, 1949).

Moreover, it may be useful to note that typology differs distinctly from another commonly (and, from time to time, incorrectly[182]) used classificatory term: taxonomy. While typology is theoretically-driven (or theoretically-derived) classificatory research, as noted above, including the resulting classificatory scheme (Bailey, 1973; Hambrick, 1984; McKelvey, 1975), taxonomy is, in contrast, empirically-driven (or empirically-derived) classificatory research including, again, the resultant classificatory apparatus (ibid.). This view is also supported by Sanchez (1993) and Meyer et al. (1993). Thus, even though some prior writers dismiss this dichotomy (e.g. Carper and Snizek, 1980), it is rather widely attested that empirical approaches to develop classificatory arrangements of *known* and *observed* research subjects are taxonomic by nature, while theoretical approaches to develop classificatory schemes of *possible* research subjects are, in turn, typological.

Thus, while typology is theoretically-derived classificatory research based on the notion of ideal type put forth by Weber (1949), there are, however, two confusions to be avoided when considering the construct of ideal type itself.

First, as discussed by Bailey (1994: 18), ideal type does not equate with 'imaginary type' or 'hypothetical type'[183]. Instead, according to him, ideal type specifies a clear-cut, unambiguous construction, which is a cleaned from all (trivial) variability and fuzziness of the everyday reality. As for a perfect empirical counterpart for the ideal type ('criterion example' in his terminology), Bailey

> "…would insist that no dimensions of the type be missing or unrepresented in my criterion example. Further, I would insist that none of the dimensions to be blurred, dull, impure, illegible, ambiguous or similarly difficult to discern. I would wish for the clearest and purest example of the type, with no dull or damaged feature. In short, I would like to have a perfect specimen." (1994: 19).

Therefore, as typologies are expected to enumerate theoretically valid ideal types of research subjects which, nonetheless, may not be find empirically in their purest, ideal form, the ideal types of competitive actions put forth by the typology proposed in this study are not expected,

[182] See, e.g. McKelvey (1975).

[183] He uses the concept of 'unicorn' as an example of such types.

and, according to the strict interpretation of the notion of the ideal type, *can not* be expected to be found empirically *in their purest form*.

However, following Bailey (1994), it is expected that it is possible to empirically find competitive actions which are close approximations of the ideal types of competitive actions specified by the typology. Indeed, if the typology is to be a proper, one being exhaustive in its specification, any competitive action should be closely enough an approximation of *some* ideal type. However, this mapping may not operate in reverse: as the typology enumerates theoretically *possible* competitive actions, it is not asserted that any particular real-world company or any sample of such companies has yet *actually* used a particular ideal type of competitive action enumerated by the typology.

Therefore, the validation of the typology should first and foremost be based on evaluating its theoretical premises and the synthesis thereof. But, nonetheless, as the typology is also intended to be used in subsequent research on competitive dynamics, next an illustration of its application and applicability will be given.

My primary aim of this illustration is to investigate how real-world instances of competitive actions map on the proposed typology: on the one hand, is the typology straightforward to use in an empirical research setting, and, on the other hand, what challenges may there be in using the typology in such a setting? And, in addition, my secondary aim is to see how the real-world instances of competitive actions distribute, with a sample discussed below, across different types of competitive actions specified by the typology.

Furthermore, as one of the deficiencies in several of the prior typologies of competitive actions has been industry-specificity, I will perform the illustration out in a multi-industry context in order to see how the typology may be applied in different industry contexts.

6.2 The Design of the Illustration

Nearly all empirical studies on competitive dynamics have followed a similar approach, first – according to my best knowledge – used by Smith et al. in "the first large-scale empirical study of competitive responses" (1991: 78), with regard to empirical identification of competitive actions and, therefore, this 'dominant design' is used also here, with one modification, which will become apparent shortly.

First, the data source, the source from which instances of competitive actions have typically been searched for in competitive dynamics research, is publicly available news[184]. In some instances, the news source has been one industry publication, like *Aviation Daily*[185] in the case of the airline

[184] As a deviation from this practice, see, e.g. Baum and Korn (Baum and Korn, 1996, 1999).

[185] A daily newspaper covering the international aviation industry.

industry (see e.g. Chen and MacMillan, 1992). In other instances, in turn, the news source has been general business press, like *F&S Predicasts*[186] (see, e.g. Ferrier et al., 1999). In this study, publicly available news is used as well. The source for the news is one prominent and rather well-trusted business news source, the *Wall Street Journal* (subsequently: the *Journal*), a source commonly used in research on management in general (see, e.g. Davidson and Worrell, 1988; Rosenstein and Wyatt, 1994; Worrell, Davidson and Sharma, 1991) and on strategic management in particular (see, e.g. Davidson and Worrell, 1992; Walsh, 1989; Woolridge and Snow, 1990; Worrell, Nemec and Davidson, 1997). The *Journal* has also been used in the study of competitive dynamics as a secondary (verificatory) source for competitive actions (Smith et al., 1991). The contents of the *Journal* were, in this study, accessed via an online news aggregating service, *LexisNexis*, a source also familiar to strategic management research (see, e.g. Reuer, 2001; Sorenson, 2000; Zahra, Ireland and Hitt, 2000).

Second, the data collection method (yielding 'coded' competitive actions from 'raw' news data) in the majority of previous studies has been structured content analysis following Jauch, Osborn and Martin (1980) which, according to Jauch et al.

> "…uses a content analysis schedule to draw relevant information from published case materials. Information from cases is coded on a content analysis schedule… Only specific information sought by the researcher is coded." (1980: 517)

The "content analysis schedule", commonly also called the 'coding scheme' (see, e.g. Bolton, 1993; Larsson, 1993), in the quote above refers to a list of items or variables to be recorded from the content ("case materials"), or, in the case of research on competitive dynamics usually, from news stories. Thus, a content analysis schedule in this context means a predesigned typology[187] of competitive actions of interest and, if needed, some other information of interest to be recorded (e.g. the date of an action and whether or not an action is a response to a prior action by some other company). And, as specified by Jauch et al. (1980), information beyond the content analysis schedule is ignored and thus not recorded. As to the search methodology for 'raw news' potentially containing empirical instances of competitive actions, prior studies fall into two broad categories. First, in some studies, the researchers have read through all the news (e.g. every issue of *Aviation Daily* concerning the period of study; see, e.g. Chen and MacMillan, 1992) in their search for competitive actions, while in some other studies researchers have relied on keyword search (see, e.g. Ferrier, 2001; Ferrier et al., 1999)[188] [189].

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[186] A business news aggregating service.

[187] Even though, in most cases, the authors do not explicitly call it a typology.

[188] To illustrate, Ferrier et al. (1999) searched, for instance, for action type 'new pricing action' with the appearance of keywords 'price', 'rate', 'discount' and 'rebate' in the headlines of news.

[189] The selection between these two primary approaches probably depends mainly on two states of affairs concerning the source(s). First, if the source is *not* in an electronic format (or convertible to such a format), or otherwise not suitable for automated searching, the keyword method can not be used and therefore reading the material through in its entirety is the only possible approach. Second, if the amount of 'raw' data in the source is vast enough (e.g. hundreds of thousands of pieces of news or more), reading all the material through may not be feasible resource-wise as compared to the keyword-

In this illustration, too, a content analysis schedule was used, which is, of course, the proposed typology of competitive actions: encountered empirical instances of competitive actions were classified into categories specified by the typology. Then, as to the search methodology for 'raw news', in this illustration the keyword approach was used: news was searched using the names of the sample companies in the headline. In other words, the search yielded every piece of news published in the *Journal* in issues available in the LexisNexis database (from May 1st 1973[190] to October 15th 2007[191]) in which the name of any of the focal companies was present in the headline.

To validate the correctness of the interpretation with regard to the content analysis (i.e. whether a piece of news contains a competitive action of interest, and if so, which type it is an instance of) most prior authors have, following Jauch et al. (1980), used multiple content analyzers (see, e.g. Chen and MacMillan, 1992; Smith et al., 1997), or shortly "coders" (Ferrier et al., 1999: 378), who usually are described as possessing certain expertise with regard to strategic management. Here this study deviates from the usual norm, as the content analysis was performed by me alone. This, of course, raises questions concerning the correctness of the interpretations made. These issues are addressed below in sub-chapter 6.4 ("*Discussion Concerning the Illustration*"). Moreover, I made the interpretation based on the headlines and the abstracts of the pieces of news (i.e. not reading every article through in its entirety), since the *LexisNexis* subscription available in this study enabled access to only this content of the *Journal*. This approach, however, can reasonably be assumed to be, for the present purposes, a very close approximation when compared to having access to and basing interpretations on full articles due to a rather universally employed journalistic practice casually known as 'the inverted pyramid' (see, e.g. Pöttker, 2003), according to which a piece of news is constructed so that the beginning of it (the headline and the lead sentence or the abstract) describes the essence of the content being reported and thereafter the content proceeds with diminishing importance (ibid.).

And finally, concerning the sample companies, the industries they represent, or operate in, were to differ from each other in order to test the applicability of the proposed typology in different industry contexts. Therefore, the industries I selected for the illustration are (1) telecommunications equipment, a 'high technology' industry driven by research and development and relatively rapid technological change (Dowling and McGee, 1994), (2) retailing, an industry in which direct consumer contact and interaction are of prime importance (Messinger and Narasimhan, 1997), and (3) car manufacturing, an industry characterized by a substantial emphasis on manufacturing efficiency (Turnbull, Oliver and Wilkinson, 1992). Furthermore, because large companies are – at least intuitively – more visible in the media than their smaller counterparts (see also Dickie, 1984), the largest companies (in terms of their global market share

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based approach. However, it is rather likely that in keyword-based approaches some relevant pieces of news are not detected because the keywords are not able to capture those.

[190] The date from which onwards the contents of the *Journal* were accessible with the *LexisNexis* subscription available in this study.

[191] The date of the search.

as of the date of the seach 2007) were selected to represent each industry in order to ensure maximal media coverage in the *Journal*. These companies were Nokia (telecommunications equipment), Wal-Mart (retailing), and Toyota (car manufacturing).

6.3 Results

The search described above resulted, in total, in 1,805 'raw' pieces of news which contained the name of any of the sample companies in the headline. The sample of 'raw' news did not contain any duplicates, i.e. no piece of news had more than one focal company name mentioned in the headline. Of the 1,805 'raw' pieces of news, 557 (30,9%) were interpreted to contain, again, as described above, competitive actions either *having been performed* or *intended to be performed* in the future – all of which were reasonably mappable to the proposed typology[192]. Of these 557 pieces of news, 410 (73,6%) contained a competitive action which *had been performed*, a competitive action proper. The following table provides company-specific details.

Table 16. Descriptive statistics of the illustrative news sample

	Toyota	**Wal-Mart**	**Nokia**	***Total***
Company-specific 'raw' news	659	891	255	*1,805*
Contained *performed* competitive action (% of company-specific 'raw' news)	166 (25,2%)	183 (20,5%)	61 (23,9%)	*410 (22,7%)*
Contained *intended* competitive action (% of company-specific 'raw' news)	70 (10,6%)	62 (7,0%)	15 (5,9%)	*147 (8,1%)*
Total, performed and intended competitive action (% of company-specific raw news)	236 (35,8%)	245 (27,5%)	76 (29,8%)	*557 (30,9%)*

While it is obvious that actions *intended* but not yet performed are not proper competitive actions because of the fact that such actions have not (yet) materialized, intended actions (or, to be more precise, announcements of intentions concerning future actions) were recorded because they most obviously indicate types of actions companies *can* use if they choose to do so because otherwise there would be no point in developing the corresponding intentions in the first place. Therefore, also recording intended actions – not jointly with proper competitive actions, but as a separate, distinct category of their own – may also reveal some tentative insights on what competitive actions companies plan to use, regardless of whether such actions eventually proceed into implementation or not.

Thus, generic, exemplary headlines for these two types of actions would be of the following sort:

[192] However, mapping certain types of competitive actions to the typology posed some challenges. I will discuss these below.

- Actions having been performed: "Company *X* has introduced product *Y* to the market this morning."
- Actions intended but not yet performed: "Company *X* will introduce product *Y* to the market later this year."

As to the results of the mapping of competitive actions reported in the 557 pieces of news to the proposed typology, the following table reports the distribution across the types (intended actions in parentheses). Moreover, following this, another table, Table 18, provides exemplary actions from the empirical sample for each action type which attracted at least one empirical instance of *performed* competitive action (thus, intended actions are not included in the discussion hereafter).

Table 17. Number of different actions identified in the illustration in the typology

	1 Bring about	2 Forbear to bring about	3 Suppress	4 Forbear to suppress	5 Preserve	6 Forbear to preserve	7 Destroy	8 Forbear to destroy
A Financial resources	T: 0 (2) W: 2 (0)						T: 3 (2) W: 4 (4)	
B Physical resources	T: 9 (26) W: 11 (27) N: 3 (0)	T: 2 (0) W: 3 (0)					T: 1 (0)	W: 1(0)
C Legal resources	T: 2 (0) W: 7 (1) N: 3 (0)		T: 4 (0) W: 16 (0)				W: 1 (0)	
D Human resources	T: 11 (2) W: 26 (3) N: 3 (0)		W: 1 (0)	W: 2 (0)			T: 3 (1) W: 4 (1) N: 1 (2)	
E Organizational resources	T: 15 (8) W: 18 (2) N: 2 (0)						T: 1 (0) W: 4 (1) N: 0 (1)	
F Informational resources	T: 4 (1) N: 10 (3)			W: 1 (0)			W: 0 (1)	
G Relational resources	T: 35 (5) W: 41 (4) N: 17 (5)	T: 3 (0) W: 1 (0) N: 1 (0)			T: 1 (0) W: 5 (0) N: 1 (0)		T: 1 (1) W: 5 (0) N: 1 (0)	
H Product attributes	T: 43 (19) W: 24 (14) N: 17 (4)	T: 4 (0) W: 2 (0) N: 2 (0)					T: 23 (3) W: 4 (4)	T: 1 (0)

T = Toyota W = Wal-Mart N = Nokia

Table 18. Examples of different actions identified in the illustration in the typology (exemplary headlines as footnotes)

	1 Bring about	2 Forbear to bring about	3 Suppress	4 Forbear to suppress	5 Preserve	6 Forbear to preserve	7 Destroy	8 Forbear to destroy
A Financial resources	Selling bonds (*p*: bonds being available for purchase)[193]						Buying back own shares (*p*: a number of shares available for public trading)[194]	
B Physical resources	Establishing a new production facility (*p*: new facility being in use)[195]	Forbearing to establish a new retail outlet (*p*: new outlet being in use)[196]					Closing existing production facility (*p*: existing facility being in use)[197]	Forbearing to cancel opening new retail outlets (*p*: new outlets being in preparation)[198]
C Legal resources	Filing a lawsuit (*p*: lawsuit being in judicial process)[199]		Settling a lawsuit (*p*: lawsuit being tried in a court of law)[200]				Withdrawing banking permit application (*p*: application being in judicial process)[201]	
D Human resources	Appointing a new CEO (*p*: new CEO being employed)[202]		Closing a first retail outlet to unionize (*p*: employees unionized)[203]	Allow unionization in retail outlets (*p*: employees unionized)[204]			Fire employees (*p*: certain people being employed)[205]	

[193] "*Wal-Mart sells $1.5 billion of bonds*", The Wall Street Journal, 23.4.2003, section C, page 13

[194] "*Toyota Motor buys back stock*", The Wall Street Journal, 30.8.1996, section C, page 19

[195] "*Toyota starts UK production*", The Wall Street Journal, 17.12.1992, section A, page 14

[196] "*Wal-Mart cancels store in Massachusetts town*", The Wall Street Journal, 17.9.1993, section B, page 7

[197] "*Toyota Motor Corp*", The Wall Street Journal, 10.1.2006, section A, page 7

[198] "*Wal-Mart to go ahead with its plan to open six stores in Argentina*", The Wall Street Journal, 15.3.1995, section B, page 4

[199] "*Nokia files patent counterclaim against Qualcomm in legal spat*", The Wall Street Journal, 25.5.2007, section B, page 4

[200] "*Wal-Mart settles suit filed against firm by a trade union*", The Wall Street Journal, 24.5.1991, section C, page 9

[201] "*Wal-Mart cancels its banking plan*", The Wall Street Journal, 17.3.2007, section A, page 3

[202] "*Leading the news: Nokia taps 25-year veteran for CEO*". The Wall Street Journal, 2.8.2005, section A, page 3

[203] "*Wal-Mart to shut down store in Canada amid union efforts*". The Wall Street Journal, 10.2.2005, section A, page 2

[204] "*Wal-Mart says it would allow unions in its Chinese operations*", The Wall Street Journal, 24.11.2004, section A, page 3

[205] "*Toyota slates 10% reduction in some outlays*", The Wall Street Journal, 29.1.1991, section A, page 14

E Organizational resources	Performing organizational restructuring (*p*: new organizational structure being in place)[206]						Eliminating levels in organizational hierarchy (*p*: certain organizational levels being in place)[207]	
F Informational resources	Acquiring company possessing technological know-how (*p*: certain technological know-how being in possession)[208]			Allow extended access for own sales information (*p*: certain outside parties accessing such information)[209]				
G Relational resources	Appointing new advertising agencies (*p*: new advertising agencies working for company)[210]	Forbearing to explain certain policies to shareholders (*p*: shareholders having the explanation)[211]			Renew supply contract (*p*: supply contract being in existence)[212]		Discontinue supplying to a customer (*p*: supplier-customer relationship being in existence)[213]	

[206] "*Nokia unveils a major shake-up*", The Wall Street Journal, 29.9.2003, section B, page 6

[207] "*Toyota wants more managers out on the line*", The Wall Street Journal, 2.8.1989, section 1, page 10

[208] "*Nokia acquires maker of networking gear in $421 million deal*", The Wall Street Journal, 26.7.2001, section B, page 9

[209] "*Wal-Mart expands access to product sales history*", The Wall Street Journal, 18.8.1999, section B, page 8

[210] "*Wal-Mart chooses two new ad agencies*", The Wall Street Journal, 13.1.2007, section A, page 2

[211] "*Wal-Mart rejects shareholder call to explain policies on tobacco ads*", The Wall Street Journal, 1.3.2002, section B, page 3

[212] "*McKesson-Wal-Mart supply deal*", The Wall Street Journal, 13.11.2001, section A, page 6

[213] "*World Watch – Europe/Africa: Nokia stops shipments to Turkey's Telsim*", The Wall Street Journal, section A, page 21

H Product attributes	Introducing a new product (*p*: new product is on the market)[214]	Forbear to introduce a new product (*p*: new product is on the market)[215]					Discontinue selling a particular product category (*p*: a product category being available for customers to purchase)[216]	Forbear to discontinue selling particular products in particular geographical area (*p*: products being available for customers to purchase in certain geographical area)[217]

[214] "*Toyota has unveiled car with low cost for Asian markets*", The Wall Street Journal, section B, page 11D

[215] "*Nokia delays music-phone launch*", The Wall Street Journal, section D, page 4

[216] "*Wal-Mart stops handgun sales inside its stores*", The Wall Street Journal, section B, page 1

[217] "*Toyota takes a big gamble on shipments*", The Wall Street Journal, 26.5.1995, section A, page 2

As can be seen in Table 17 above, all decision domains (financial resources [A] through product attributes [H]) received empirical instances. The same also applies to all elementary actions (bring about [1] through forbear to destroy [8]), with the exception of forbearing to preserve (6). Such a general observation is, of course, encouraging when considering the general applicability of the proposed typology: the selection of both theoretical dimensions in the typology seems to be at least tentatively meaningful in an empirical setting, as there is distribution of observed competitive actions across different categories on both dimensions (with the exception of forbearing to preserve). However, as to the absence of empirical instances of forbearing to preserve, I once more emphasize that the proposed typology, as any typology, does not concern itself with empirical reality in the sense that it would enumerate types of research subjects *known* to exist or having existed, but instead posits what research subjects are *theoretically possible*. In addition, it must also be borne in mind that the empirical sample encompasses only three companies and their competitive actions published in only one news source which, not doubt, limits the amount and variability of competitive actions I was able to detect in the first place.

Nonetheless, it seems that two elementary action types have received substantially more empirical instances than other elementary types: bringing about (303, or 73,9% of all performed actions) and destroying (56, or 13,7%). As the numbers indicate, these two elementary action types account for nearly 90% of all detected performed actions, leaving the remaining ten percent to be divided among the other six elementary types. There is even a more noteworthy distinction if one aggregates the elementary types into 'positive' (or 'active') actions and forbearances: 387, or 94,4%, of performed actions are 'positive' actions, whereas the remaining 23, or only 5,6%, are forbearing by their nature. Nonetheless, with regard to forbearances, the most central finding is that *such actions were detected in the first place*, which is noteworthy because no prior typology has included any such actions whatsoever.

When considering the decision domains, in turn, the distribution is substantially more even: the two categories receiving most instances, product attributes (120, or 29,3% of all performed actions) and relational resources (112, or 27,3%), account for roughly half of all performed actions, leaving the other half for the remaining domains of decision, of which only the domain concerning financial resources attracted less than ten instances.

Now, what about company-specific differences with regard to usage of different actions? The following two figures depict the company-specific distributions across different elementary actions (Figure 11) and domains of action (Figure 12). Both figures present the distributions as company-specific percentages of all company-specific actions.

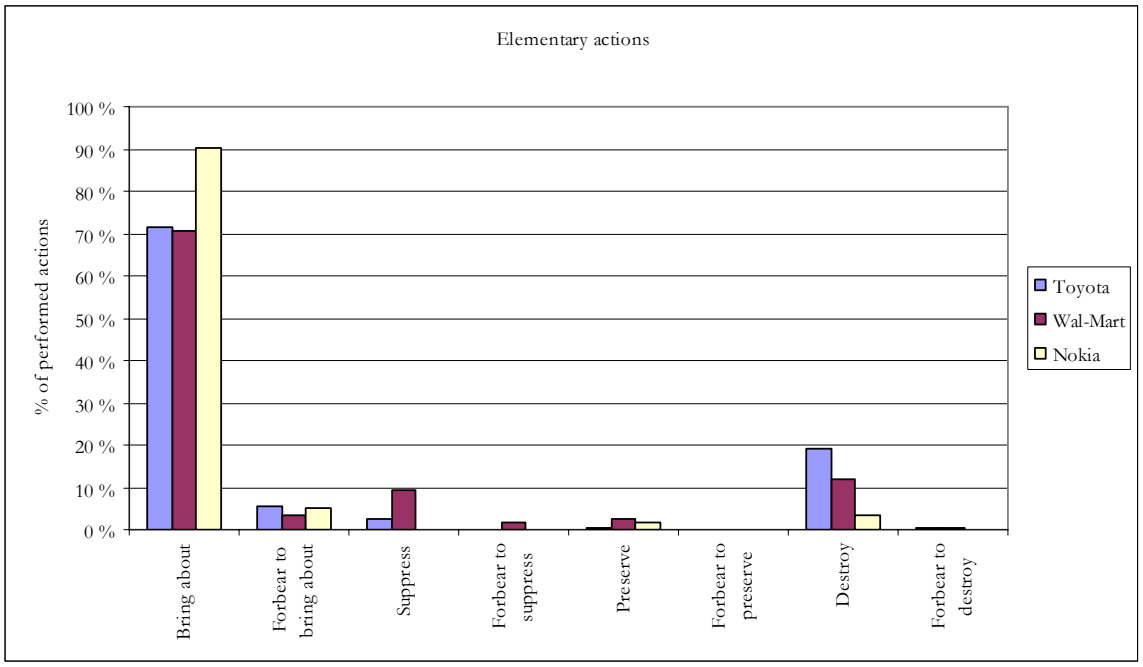

Figure 11. Company-specific distributions across elementary actions

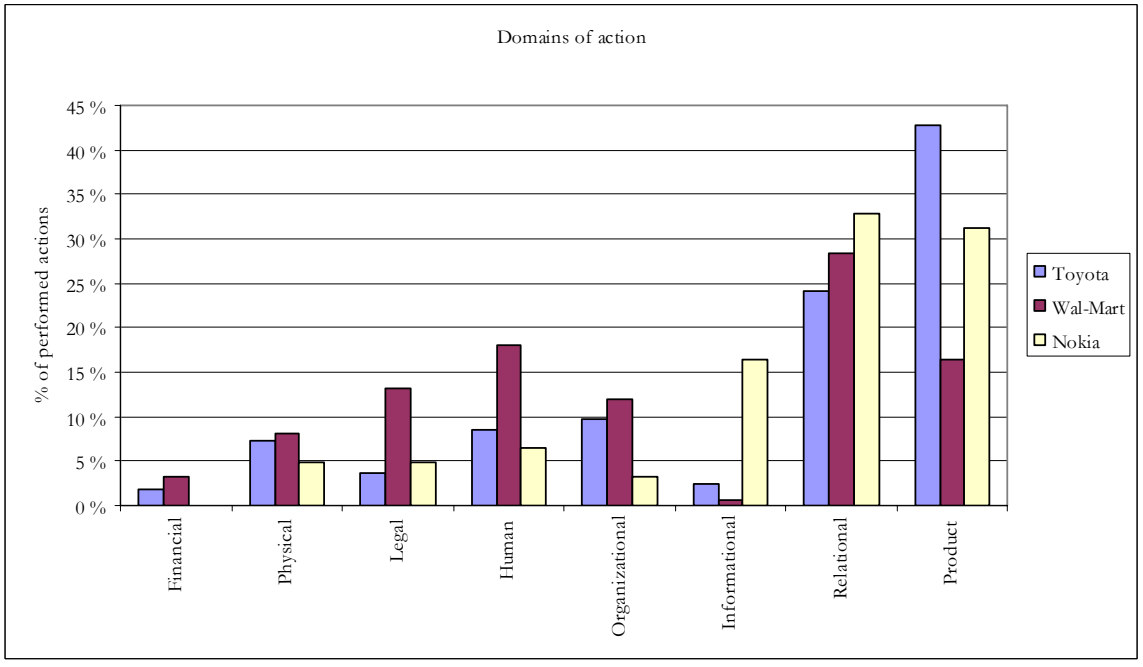

Figure 12. Company-specific distributions across domains of action

When observing the former figure, it seems that the companies do not differ from each other markedly: all companies dominantly have used 'bring about' as their primary type of elementary action. However, there are two noteworthy observations to be made from this figure. First, the proportion of 'suppress' is significantly higher in the case of Wal-Mart than in that of Toyota or, indeed, Nokia. When referring back to Table 17 above, such actions, in the case of Wal-Mart, fall, with one exception, under the decision domain of legal resources. These actions invariably

concern Wal-Mart settling a lawsuit, usually with a substantial payment made by itself, in which Wal-Mart is the defendant. Thus, through such actions Wal-Mart suppresses a state of affairs from becoming into existence: the lawsuit being tried in a court of law[218]. The high number of settling actions, in turn, when compared to the other two companies, is probably due to the controversial nature of Wal-Mart and, in particular, the means by which it tries to enhance and defend its low-cost competitive position (e.g. employee and procurement policies), which have tended to attract in the recent past quite a substantial number of lawsuits on a steady annual basis. Second, Toyota, and to some degree Wal-Mart, have used 'destroy' more frequently than Nokia. In the case of Wal-Mart, when again referring back to Table 17 above, there is no single domain of action attracting a substantial number of destroying actions, but in the case of Toyota, in contrast, there is: product attributes. Such actions by Toyota are twofold. First, they encompass product recalls: through these actions Toyota destroys an unfavorable state of affairs, the existence of defective Toyota products in use by consumers (which, in turn, might cause rather costly product liability lawsuits). Second, these actions include discontinuations of existing products (usually as these products become obsolete or for some other reason are replaced with newer products) through which Toyota destroys a state of affairs of one of its products being available for customers to purchase it. Otherwise, the companies do not seem to differ from each other markedly with regard to their usage of different elementary actions.

Then, observing the latter figure, Figure 12 above, in turn, several noteworthy observations emerge. First and foremost, relational resources and product attributes generally seem to be those domains of action which received most empirical instances[219]. While there is no remarkable across-company variation with regard to actions concerning relational resources, Wal-Mart seems to have performed substantially less product attribute-related actions than Nokia and Toyota. This is most probably due to the fact that Wal-Mart has very little if any own product development (and, consequently, corresponding new product introductions), whereas in the case of Nokia and Toyota, product development and, subsequently, new product introductions, product revisions and discontinuations of old products play a major role, which, indeed, form the bulk of their product attribute-related actions. Second, Nokia seems to have used remarkably more actions concerning informational resources than either of the two other companies. This, in turn, is most likely due to the technology-intensive (and thus information-intensive) nature of the industry in which Nokia operates: technological know-how (a variety of informational resources) is, no doubt, of prime importance for the success of Nokia. Moreover, the vast majority of such actions in the case of Nokia in the sample were acquisitions of companies which, invariably, possess competitive technological know-how in some strategically important technological field (and thus were acquired for this reason). Thus, through these actions Nokia has accumulated its informational resources, technological know-how. Third, Toyota and Wal-

[218] One may remark here that such an action (settling a lawsuit) can not be performed by Wal-Mart alone, because for the settling agreement to be reached, both disputing parties must be willing to form the agreement. However, when considering the sheer size and, more importantly, the financial resources of Wal-Mart (which it possesses and has access to), in most, if not all, cases Wal-Mart can be seen in practice to be capable of paying sufficiently to reach a settling agreement if it wishes to do so.

[219] The nature of and interpretations concerning actions with regard to relational resources are discussed more in detail below.

Mart seem to have relied, in relative terms, more on actions concerning organizational resources than Nokia. This is probably so because in the case of Toyota, and, in particular, Wal-Mart, efficient organizational policies, procedures and routines are of substantial importance due to the nature of their industries: car manufacturing and retailing, respectively, whereas in the mobile communication equipment industry that Nokia represents, product innovation is more central (which, in turn, is signified by Nokia's reliance on actions concerning informational resources as discussed just above). Fourth, and finally, Wal-Mart seems to exhibit more usage with regard to actions concerning human and legal resources. In the case of human resources, the vast majority of such actions, irrespectively of the company, were top management appointments and such actions probably are reported more often in the US based *Journal* in the case of Wal-Mart than in the case of Nokia and Toyota, both of which are non-US companies. Considering legal resources, in turn, there is probably a more substantive explanation already touched upon above. Namely, as already noted, Wal-Mart has been, and is, subject to numerous disputes concerning the justifiability, ethicality and even legality of the means by which it tries to defend and enhance its low-cost competitive position, and, therefore, Wal-Mart has been, and is, involved in several legal disputes – both in an initiating and defending (and often settling) role – and hence its heightened activity with regard to legal resources.

Now, let me turn from the central imminent results of the illustration to discuss the methodological and other similar issues concerning the illustration.

6.4 Discussion Concerning the Illustration

As noted above, the design of this illustration – examining how the competitive action types enumerated by the proposed typology may manifest themselves in empirical material – follows the standard practice in competitive dynamics, with one significant exception: the content analysis (or 'coding' of actions) was performed by me alone. All of the choices I have made with regard to the design – both conforming and diverging with regard to the standard practice – have potential implications as to what the illustration yielded. These aspects will be discussed next.

6.4.1 On the data source

The data source was selected, consistent with some prior studies on competitive dynamics (see e.g. Ferrier et al., 1999), to be a major, publicly available general business news publication, the *Wall Street Journal*. This choice is, no doubt, justified if one seeks a credible business news source for competitive actions which, moreover, is likely to cover major international companies – like Wal-Mart, Toyota and Nokia – rather well at least with regard to their most significant competitive actions. The latter aspect is also supported by the results of the illustration: even though most actions were 'positive' actions and, moreover, 'bringing about' and 'destroying' by their elementary nature, it was also possible to detect instances of other kinds of actions like

'suppressing' and 'preserving' and, moreover, several instances of forbearances of different kinds.

However, even though using a major business news source like the *Journal* or an established industry publication like the *Aviation Daily* in the context of the aviation industry may be rather straightforward to justify, this approach contains certain weaknesses, too. Namely, by restricting the sources for competitive actions to include only certain types of sources (like 'major' business publications with some standard), one also restricts one's ability to detect competitive actions, since some such actions may not surface in, say, 'major' publications but which, nonetheless, are competitive actions in that a company of interest intentionally performs the action because it desires to achieve or maintain its competitive advantage and believes that the action will contribute to the fulfillment of this desire, which, in turn, is the definition for competitive action formulated and used in this study. The possible choice of not to restrict the sources for 'raw' news data is also justified from the perspective of being able to observe the so-called 'micro-structure of competition' (Bromiley, Papenhausen and Brochert, 2002), which, by definition, is very local (in geographical terms) by its nature and is therefore very likely to be reported mainly in local news sources. Thus, if one restricts the sources for competitive actions to include only 'major' news sources, one may also limit one's ability to detect certain competitive actions which are not newsworthy enough, for one reason or another, to be published in 'major' sources.

Considering the sample companies in the illustration, the role of regional news sources probably would have been particularly important in the case of Wal-Mart, because, according to the micro-structure view of competition (Bromiley et al., 2002), and due to the consumer-centric nature of the industry (Messinger and Narasimhan, 1997), many relevant competitive engagements are expected to occur in a local level (an individual retail outlet as the basic unit of analysis) and because such engagements are very unlikely, individually, to surface in 'major' publications. If this reasoning is accepted, it is likely, due to the news source selection made in the illustration, that some important (at least from Wal-Mart's point of view) competitive actions of Wal-Mart (and probably to some degree also with regard to Nokia and Toyota) most likely will remain undetected.

Moreover, it should be emphasized that the data source in the illustration, as in most previous studies on competitive dynamics, is publicly available, published news, in contrast to information sources internal to the companies (which are usually non-public by their nature). While this is the dominant choice in the research on competitive dynamics, this approach is most likely to be prone to certain biases. Namely, it is rather likely that 'positive' actions are more readily reported in the news than forbearances for at least two reasons. First, it may be, for a reporter, easier both to detect and report a 'positive' action by a company than it is to detect and report something that a company has decided not to do, because the latter, to begin with, does not introduce any immediate and apparent change in the current states of affairs in, say, a particular industry. Therefore, it may be that forbearances generally are (even though there most certainly are exceptions) less newsworthy. And second, it is likely that companies release less information concerning their forbearances (concerning, say, intended new products which were terminated

before commercial introduction) and therefore such actions do not end up being reported in publicly available news sources because such information simply remains within the company. Thus, for the latter reason, it would be particularly illuminating to use also non-public, company-internal sources (either alone or in particular alongside publicly available sources) in order to examine the extent to which companies actually (beyond what ends up being reported) use forbearances as a part of their competitive behavior.

6.4.2 On the retrieval of news

I obtained the 'raw' news for the illustration, again, in line with several previous studies on competitive dynamics by using a keyword-based approach. However, deviating from some previous applications of this approach, the only keywords employed here were the names of the companies the occurrence of which was searched for in the headlines of the news published in the selected source. As no additional action-related keywords were used, the approach, of course, does not inherently introduce any particular bias concerning the nature of the resulting competitive actions, since any piece of news was allowed to surface as long as it contained the name of one of the sample companies in the headline. However, to be precise, this approach may still be unable to detect *all* pieces of news containing a competitive action by some of the sample companies as some pieces of news may not contain the name of the focal company but still report a competitive action by the company[220]. Nonetheless, it is likely that this is a minor methodological concern with regard to keyword-based search approaches.

6.4.3 On interpreting the actions

A more substantial concern in the illustration is the fact that interpreting (or 'coding') competitive actions and mapping them onto the proposed typology was done by me alone. As noted above, in this respect the illustration deviates from the dominant practice used in most prior studies on competitive dynamics in which two (or more) coders have been employed. Indeed, using two (or more) coders to make interpretations concerning actions reported in news most certainly increases the likelihood of making 'correct' interpretations, to judge which action type the real-world action reported in a given piece of news resembles most. The logic here is that if two (or more) coders agree with regard to their judgment, the judgment is more credible than when done by one individual coder alone. And, if the coders disagree the action in question can be examined in more detail and the disagreement can thereby be resolved. In this regard the interpretations I have made in the illustration are arguably less credible than in the case of two (or more) coders. However, it should be also noted, to counter this obvious criticism to some (yet perhaps a minor) degree, that coding and mapping the actions was done by the very same

[220] For instance, in a piece of news titled "*In brief – Lithium-ion battery is rejected for Prius*" (The Wall Street Journal, 14.6.2007, section A, page 10) it is reported that Toyota will not use a particular battery technology in certain hybrid cars to be introduced to the market due to safety concerns (thus yielding forbearing, product attributes as the type of competitive action).

person who is also responsible for the theoretical development of the coding scheme, the proposed typology of competitive actions, and, therefore, no 'external' coders (like other postgraduate students) were used, who, for instance, would have had to be familiarized with the typology and its contents prior to embarking on the coding task. Thus, I hope, I have made no coding errors due to insufficient or otherwise superficial knowledge about the coding instrument itself.

Nonetheless, recalling that I delineated that the central aims of the illustration are to examine whether or not (or, to what degree) the typology is straightforward to use in an empirical setting, and, based on this examination, to see what challenges there may be in applying the typology in such a setting, a brief discussion about the actual process of coding the actions in the context of this illustration is in order.

Let me begin with the domains of action. Some of the domains of action turned out to be relatively straightforward to use. Indeed, it was relatively clear-cut (and supposedly unambiguous) to assign empirical instances of competitive actions, as reported in the *Journal*, to financial, physical, legal and human resources, and product attributes. This is, at least to some extent, due to the unequivocal vocabulary used in reporting about such actions. For example, news containing instances of competitive actions concerning human resources were nearly invariably characterized by concepts like 'CEO', 'manager', 'layoff', 'executive', 'worker', 'jobs', or 'employee' (or some derivatives of those) appearing in the headlines or the abstracts of the news. Similarly, actions concerning legal resources contained in most cases rather specific concepts such as 'lawsuit', 'sue', 'appeal', 'permit', 'license', 'settle', 'right', or 'patent' (or some derivatives of those) in headlines or abstracts. Moreover, it may be that the corresponding resource categories are so well-established (in theory or in common business-related discourse, or in both) that their perception is relatively uncomplicated, both for reporters and readers of business news. For instance, the financial instruments or forms of financial resources available for companies may come in such well-specified forms that there is not much room for the creativity of the company when performing actions concerning these resources. Perhaps the most noteworthy exception to these otherwise straightforward domains of action is the concept of product: in making the interpretations, what to include under the concept of product and what to exclude? In the case of Wal-Mart, for instance, is one to perceive merely the products on the shelves of Wal-Mart as its products or, at the other end of the supposed continuum, the total shopping experience of visiting a Wal-Mart retail outlet as its product (in which case the concept 'offering' could perhaps be more appropriate)? With suitable argumentation both interpretations could, no doubt, be defended and hence entertained. In the illustration, however, the former interpretation was made because the actions concerning the latter, the total shopping experience (excluding the actual products or suitably straightforward services such as check cashing) in most cases was perceived to fall more naturally under physical resources, concerning the retail outlets of Wal-Mart. In any event, the emergence of such considerations highlights the centrality of human judgment in making the interpretations concerning the nature of competitive actions, not only in this illustration but, I dare say, in any similar empirical study on competitive dynamics.

While the above-mentioned domains of action were, despite a few considerations, relatively straightforward in terms of interpretation, the remaining ones, organizational, informational and relational resources, posed some challenges. These challenges, however, did not mainly arise because of ambiguous terminology per se, but rather because the competitive actions eventually interpreted to fall under these categories in many cases contained some aspects according to which such actions could also be interpreted to belong under some alternative domain of action. For instance, initiating an environmentally friendly program – while being quite obviously an organizational policy, and hence concerning organizational resources – may also be seen to contain aspects concerning relational resources (to enhance the relations with certain stakeholders of the company such as environmental organizations, local communities and regulatory authorities), human resources (if the program includes, as such programs usually essentially include, educating the employees of the company about the new policy) and even physical resources (if the program includes significant investments in physical technology in order to implement the program). Similarly, the competitive actions ultimately interpreted to concern the relational resources of a company (like establishing a joint venture with a competitor) nearly invariably contained, in addition to the relational aspect, also some information concerning the subject matter of the relationship such as, say, co-operation in technological development, in which case the action also has to do with the informational resources (information about technology, i.e. technological know-how) of the company. However, in such cases I based the decision on the interpretation of the believed essence of the action (essentially relying on how it was reported in the piece of news). For instance, in the above-mentioned case of joint venture in technological development by the focal company and its competitor, I interpreted the essence of the action to be the establishment of a new (kind of) relation between the focal company, and its competitor which, in fact, has taken place, whereas the accumulation of technological knowledge may take place sooner or later, or may not take place at all if the co-operation is swiftly terminated or otherwise turns out to be non-productive in this sense. Nonetheless, I must stress that these considerations, once again, highlight the role of human judgment, which, I believe, is not peculiar to this typology and this illustration alone, at least in qualitative terms.

Let me, concerning the issues on interpreting actions, finally turn to the elementary nature of the actions, the second dimension in the typology. In this case the theoretical basis for interpretation is considerably more definite, since it is formal by its nature. For instance, the action is 'bringing about' by its nature if the company, by its action, brings about a state of affairs which did not exist prior to the action, and which, in addition, would not have existed after the action without the action in question bringing it about. Similarly, taking another example, the action is 'forbearing to suppress' by its nature if the state of affairs of interest did not exist prior to the action and it did exist after the action and the company decidedly did nothing to prevent this from happening. So far, so good. However, the possible difficulty here arises from the very question of the state of affairs: what should, in a certain case, the state of affairs of interest be? Or perhaps better, how should the state of affairs be formulated? If one considers introducing a new product as an exemplary competitive action, there does not seem to be any particular difficulty, since the state of affairs rather naturally can be perceived as the new product being in

the market (available for prospective customers to purchase it). Thus, this action, introducing a new product, most obviously is 'bringing about' by its nature. However, consider another example: performing an organizational restructuring[221]. Should one in this case perceive this as the deletion of the old organizational structure (yielding 'destroying' as the elementary action type) or the creation of a new one (yielding 'bringing about')? In other words, should the state of affairs here be perceived as the existence of the old or the new organizational structure? Once again, I based the decision in this and similar cases in the illustration on the perceived essence of the action (again, basing the interpretation on the information provided by the piece of news reporting the action). In the above-mentioned case of organizational restructuring, it is usually most likely the case that a company, for one reason or another, wishes to instate a new organizational structure which, logically speaking, implies the replacement of the old one and not vice versa (that is, wishing to abandon the old structure implying the materialization of a new structure of some sort). Therefore, the state of affairs of interest in this specific case would be the existence of a (specific, predetermined) new organizational structure and the action would therefore be 'bringing about' by its nature. Therefore, I based the choice between different possible conceptions about the state of affairs of interest when coding the actions in the illustration on the perceived essence of each action and such practice should, I believe, guide the application of the proposed typology also in other contexts.

Thus, to recapitulate, the typology turned out to be generally rather well applicable in an empirical setting (coding the empirical instances of competitive actions onto the categories specified by the typology), but the application does have, in some cases and with regard to both of its theoretically-derived dimensions, some challenges which must, case by case, action by action, be carefully addressed. While these challenges may, at first glance, seem difficult (usually necessitating determining the choice between two or more different categorical decisions), at least in this illustration careful contemplation about the essence of each action, specifically from the point of view of the focal company, provided a workable guideline.

Nonetheless, interpreting and coding competitive actions has, even in a situation in which multiple coders are used, certain other methodological issues which have to do specifically with using news as the source data. These issues, however, are not peculiar to this illustration alone but apply to all content analysis in the research on competitive dynamics in which such data is utilized, and therefore I discuss these issues below in a general methodological discussion (sub-chapter 6.5). Before that, let me finalize the discussion concerning the illustration by considering the company sample employed.

[221] Considering it, for the present purposes, as a discreet action and not as a series of discreet actions together constituting (or resulting tosuch a restructuring

6.4.4 On the company sample

While it is true that the sample companies represent rather different kinds of industries and, moreover, are prominent companies in their industries thus enjoying supposedly high visibility in the business press, there are some considerations concerning the company sample worth addressing, which may have shaped the results of the illustration.

First, because the companies are dominant ones (global market leaders) in their industries, it may be that they are inclined to use certain types of competitive actions rather than some other types. Indeed, there is already existing evidence in the literature on competitive dynamics suggesting that dominant or otherwise large companies differ from their challenging or otherwise smaller counterparts in terms of their behavior (see, e.g. Chen and Hambrick, 1995; Ferrier et al., 1999; Más-Ruiz et al., 2005). Moreover, it may be – given that there is only limited amount of publication space available in any given news source – that large companies differ from their smaller counterparts in terms of what eventually gets published, because different competitive actions may seem more newsworthy for large and small companies. Thus, the illustration most certainly would not have suffered if more companies – both large and small – were included in the company sample even though the visibility of competitive actions by smaller companies, no doubt, would have been lower in the selected source. Moreover, while the industries that the sample companies represent – retailing, car manufacturing and mobile communications equipment – differ from each other, all of these industries can be seen as more or less 'traditional' ones. Therefore, the illustration, in its present form, does not provide any insights concerning the applicability of the proposed typology in more 'non-traditional' industries like internet search engines (e.g. Google) or social networking services (e.g. Facebook). Moreover, one additional particular issue shaping the results of the illustration may be the fact that the news source and one of the sample companies (Wal-Mart) is US-based, while the other two are non-US-based and, therefore, are probably considered to be more or less foreign companies by the news source. This may, for instance, be one explanation why top management team appointments were more visibly reported in the news source in the case of Wal-Mart than in the case of the two other companies.

While these considerations concerning the company sample are rather obvious and therefore expected, let me next turn to deeper methodological discussion concerning the use of news(paper) data in research in general and in research on competitive dynamics in particular.

6.5 On the method using news(paper) data in general

Using news as source of event data is not, by any means, peculiar to the research of competitive dynamics. Instead, in political science in particular, event-based approaches[222] have a considerably long tradition, dating back at least to the 1960's (Olzak, 1989). From the viewpoint of researchers interested in competitive dynamics this is, of course, a welcome observation since such a long tradition can provide invaluable insights about, for example, analogous, currently unadressed research questions. However, with regard to this study the most central observation is the fact that in political science critical discussion concerning event-based *methodology* – especially with regard to using news as source of event (or action) data – dates back several decades (see, e.g. Danzger, 1975; Hazlewood and West, 1974; Jackman and Boyd, 1979; Snyder and Kelly, 1977) continuing up to the present (see, e.g. Earl, Martin, McCarthy and Soule, 2004; Maney and Oliver, 2001; Myers and Caniglia, 2004; Ortiz, Myers, Walls and Diaz, 2005; Wilkes and Ricard, 2007). Indeed, this critical body of literature has examined the news media (implying usually newspapers but extending also sometimes to other media like television) as a source of event data with considerable attention and detailedness and, therefore, can provide scholars of competitive dynamics with worthy methodological insights. For this reason, the central findings in this literature are next briefly reviewed in order to illustrate what potential pitfalls and other considerations there may be when using news as a source for event data. Furthermore, immediately after this is discussed what implications these findings are bound to have for the research of competitive dynamics when empirical research is based upon published sources like newspapers and other similar news outlets. Thus, this methodological discussion also sheds some light on the observations that the illustration of the applicability of the proposed typology yielded (e.g. the relatively small number of forbearances).

6.5.1 News(papers) as source for event data

In the context of political science, it is relatively commonplace that empirical research on various types of collective action (such as political protesting) relies on newspapers as a source for empirical instances of such actions (Maney and Oliver, 2001). Furthermore, it is not uncommon to rely, like many studies on competitive dynamics have done, including the illustration in this study, on a single source like the *New York Times*[223] (Myers and Caniglia, 2004). Even though at first glance relying on only one source may seem potentially troublesome, as discussed above concerning the use of the *Wall Street Journal* (subsequently, again, the *Journal*) in the illustration, empirical investigations in the context of political science have indicated that the *New York Times* (subsequently: the *Times*) has, for the purposes of recording collective political events, such as demonstrations in the national U.S. setting, proven to be superior over any rival newspaper

[222] I.e. not investigating actions alone but events of other kinds as well.

[223] In the context of competitive dynamics, one such publication has been, as noted above, the *Aviation Daily*.

(Myers and Caniglia, 2004). Thus, some news sources may indeed be superior over some other sources[224].

But even so, numerous empirical studies in political science have indicated that not all events of interest make their way into even the premier newspaper in this context, the *Times*. Indeed, comparing the coverage of certain protest events of this publication to other publicly available records of the same events (like police records such as event permits and arrest records), Myers and Caniglia (2004) found that the coverage of the *Times* for U.S.-based political protests was, depending on the moment of time, approximately between 20 and 60 per cent of all the events they could find, combining all the information in all their sources. This, however, is probably not astonishing, since it is both intuitively reasonable, as well as attested by scholars on political science and media studies, that media – regardless of their type – only report a subset of events taking place in the real world (see e.g. Maney and Oliver, 2001). Thus, the information that the media provide is inherently limited with regard to empirical reality. Or, as Ortiz et al. vividly put it in their relatively recent review concerning the use of newspaper-derived data in political science: "[u]nfortunately, newspaper content is not created for the purpose of conducting social scientific research nor is it intended to capture or sample all protests or other political events, even in a limited geographic area" (2005: 397). Moreover, this assertion is not peculiar to the political reality alone but an inherent feature of all media – including the business press.

Thus, if not all events end up reported in the media, a central question naturally is: what determines which events (or, in the context of competitive dynamics, competitive actions) get reported? This is a central question if one is to understand, and thereby take into account, what biases there may be in a dataset which is derived from media sources. This issue is known in the literature as 'media selection bias' (McCarthy, McPhail and Smith, 1996). Let me now turn my attention to this problem.

6.5.2 What determines whether an event gets reported in the media?

In political science, numerous studies have provided various criteria which influence the likelihood with which a real-life event gets published in the media. To be precise, such studies usually examine political demonstrations as such events, and, moreover, the notion of media often assumes newspapers. However, as the following discussion will show, there seem to be no major obstacles (at least in an intuitive sense) in applying the underlying logic to other events – like competitive actions by companies – and other media as well. Nonetheless, the factors influencing the probability with which a real-life event will get reported in the news are discussed next using the treatment of Ortiz et al. (2005) as an organizing framework (but not limiting the discussion to their findings only).

[224] However, the superiority is, of course, most likely not universal but depends on the information needs.

Ortiz et al. (ibid.) posit that such factors can meaningfully be divided into three categories: 1. the intrinsic properties of the real-life event itself ('event characteristics' in their discourse), 2. the properties of the context in which the event takes place ('contextual factors'), and 3. the routines of the reporting media ('media structure and media outlets'). Let me examine each of these categories in turn.

1. The intrinsic properties of the real-life event. Numerous studies have sought answers to the question of which kinds of events get reported in the media, and in the context of political science there seems to be one particular answer to this question with explanatory power surpassing those of all others: event size (usually in terms of participants and occasionally in terms of duration; Barranco and Wisler, 1999; McCarthy et al., 1996; Oliver and Maney, 2000). In other words, the larger the event is, the higher is the probability that it will be reported in the news. Even though this is often acknowledged to be the main factor, there are also numerous other factors which influence the reporting probability. For example, McCarthy, McPhail and Smith (1996) add to the list the noteworthiness (e.g. notoriety) of actors involved in the event and the unusualness of the event (i.e. differing from a normal course of life in a qualitative manner, thus being of general human interest). In a seeming contrast to unusualness, Oliver and Myers (1999) supplement the list by noting that events that fit to a certain widely shared mental template (thus being qualitatively usual) are more likely to be reported, because such events are easier for reporters to report and consumers of the media to receive information about. Moreover, they note that the news value of an event does not depend only on the number of people directly involved in the event, but also on the number of people affected by the event (or the magnitude of the effect on some other measure), and on whether the event involves a conflict or some other form of human drama (e.g. violence). Furthermore, Oliver and Maney (2000) have found that in the precise case of political demonstrations, the presence of counterdemonstrators (implying the presence of a conflict), high number of police present, involvement of local people and, quite curiously, the use of voice amplifying equipment all increase the probability that an event will be reported in the media. Thus, to summarize, there is a substantial variety of empirically established factors with regard to the intrinsic nature of a real-life event which affect the likelihood that an event finds its way to be reported in the media. Moreover, these factors, taken together, provide a partial guidance for understanding the 'media selection bias' problem – which events are likely to be reported in the media and which are not. However, the intrinsic properties of events do not suffice alone and therefore I next direct my attention to the second aspect: the context in which an event occurs.

2. The properties of the context in which the real-life event takes place. To begin with, Wilkes and Ricard (2007) note that the newsworthiness of an event depends on what has already taken place before: a prior significant event or a series of such events may imply that a particular topic enjoys heightened media attention at a specific point of time and therefore a particular new real-life event relating to this topic may, for this reason, also have elevated newsworthiness when compared to a 'normal' situation. Thus, events which are "culturally resonant" (McCarthy et al., 1996: 480) are likely to receive media coverage. In a similar vein, Myers and Caniglia posit that media attention is more generally subject to 'media attention cycles', noting that "[a]s social

issues move in and out of vogue, the (media) coverage of related social movements ebbs and vanes" (2004: 521). Indeed, McCarthy et al. (1996) actually suggest that the temporal location in a media attention cycle is the second most important factor (after event size) in determining the likelihood with which an event will be reported in the media. Another well-documented contextual phenomenon elaborating the notion of timing is the so-called 'news hole' effect (Myers and Caniglia, 2004) which suggests that the likelihood of a particular event to be reported is higher when there are less newsworthy items (e.g. other events) competing for the (more or less) constant publication space (e.g. column millimeters or broadcasting seconds). In a more specific form, this phenomenon is also sometimes called the 'Monday effect', which, correspondingly, suggests that an event occurring on a Monday will receive more media attention than on other days of the week because usually on Mondays the news is 'slow' (Oliver and Maney, 2000). In addition to the Monday effect, there is also evidence suggesting that certain specific times of a calendar year may heighten the newsworthiness of certain issues (or events). For example, Oliver and Maney (2000) suggest that holiday seasons influence the media attention, and Bunis, Yancik and Snow (1996) support this view by noting that issues concerning homelessness and hunger, for example, receive more media coverage during the Christmas and Thanksgiving holidays than usually. Moreover, events which are or are perceived to be consequential (i.e. substantial in terms of their consequences in one way or another) are more likely to receive more media coverage than non-consequential ones (McCarthy et al., 1996). Likewise, Ortiz et al. note that events that occur in culturally significant places (e.g. in the capital of a country) are more likely to be reported than other events, because such places "carry more political and cultural clout" (2005: 400). Thus, as with the intrinsic properties of real-life events, there are a number of aspects with regard to the context in which the events occur influencing the likelihood with which a particular event will be reported in the media. However, even if two events are qualitatively equal with regard to their intrinsic properties and contextual surroundings, the routines of the reporting media may favor one event over the other, as I shall next discuss.

3. The routines of the reporting media. Prior literature has identified a substantial number of aspects regarding the reporting routines of the media influencing the likelihood of an event getting reported. Perhaps the best documented of these is the issue of proximity (Myers and Caniglia, 2004). Namely, it is apparently well-established that the media more likely report events which occur physically close to their editorial offices and/or audience. With regard to proximity to editorial offices, it is suggested, for instance, that reporters simply have better (first hand) access to events taking place close to where they actually work (ibid.). For instance, national newspapers are found to report more about events taking place in their own metropolitan area despite their nation-wide target audience (Myers and Caniglia, 2004; Oliver and Maney, 2000). And correspondingly, the audience of the media is more likely to be interested in events occurring nearby, because local events may, in a very direct and obvious way, influence the daily lives of the local people (Myers and Caniglia, 2004; Oliver and Myers, 1999). It is, of course, possible to argue, as Ortiz et al. (2005) do, that the rapid development of communication technology may reduce the significance of proximity, but it is more likely to reduce it from the news-making routine point of view and probably less from the audience's interest point of view. Thus, if one

considers the previous notion of event size being a major correlative with media coverage, one may reason that even if an event is not a major one (on a national scale, for example), it still has a relatively good chance of being reported in the *local* media if it is *locally* important (e.g. concerns a locally resonant issue like closing a relatively small factory of a company which, at the same time, is a major local employer). Furthermore, it is apparently relatively well-established that the political (or some other equivalent) stance of a media outlet most likely shapes the content which will be published and which will be filtered out (Mueller, 1997a; Myers and Caniglia, 2004; Oliver and Myers, 1999). In a similar vein, commercial newspapers may depend to some extent on advertising sales, and therefore may be reluctant to publish news which, in one way or another, may hurt their advertising revenue (Ortiz et al., 2005). Moreover, McCarthy et al. (1996) posit that the story deadlines of reporters may come into play and, therefore, an event may receive more media coverage if its timing is convenient with regard to media deadlines. Relating to this, Oliver and Myers note that event organizers, for instance, can increase the likelihood of an event receiving media coverage if they know and take advantage of media routines by, for example, "writing a good press release with vivid quotations that can be incorporated into a news story, timing the event appropriately for news media deadlines, cultivating relationships with reporters, notifying the press in advance of upcoming events, and (for television coverage) planning events for their visual appeal" (1999: 46, parentheses in original).

6.5.3 Potential sources of biases in news-related research on competitive dynamics

Now, the above-discussed aspects concerning problems inherent in the use of media sources as sources of events (and, therefore, actions) are well-established in political science (and also in related literature in sociology) and thus it is, in that scientific tradition, generally advisable to carefully address such concerns in the design and reporting of a particular study relying (even partly) on media sources.

Given the prominence of such issues in that field of scientific inquiry, a natural question then is: do these issues come into play also in the study of competitive dynamics (the study of competitive action and response between competing companies) when media are used as a source of competitive actions? And if so, how do these issues manifest themselves? Unfortunately, in the context of competitive dynamics, these issues have not been – at least to my best knowledge – addressed in any serious empirical manner. But, nonetheless, as a starting point I may formulate some conjectures, based on the empirical work done in political science, about how these media-related issues *might* affect the study of competitive dynamics and, therefore, the illustration of the applicability of the proposed typology of competitive actions. This discussion, to which I will next turn, could also serve as a point of departure for subsequent empirical investigation for supporting or falsifying such conjectures.

1. The intrinsic properties of the real-life event. If event 'size' has been found to be a major correlative with media coverage, this would, in the context of competitive dynamics, probably mean that spectacular competitive actions (by some appropriate measure) receive more reporting by the

media than routine, unspectacular actions. This could mean that, for example, novel product introductions, substantial layoffs, or major new facility establishments receive more media coverage than, say, incremental product upgrades or replacements of worn-out production equipment. Or, in the language of competitive dynamics, 'strategic actions' may be more visible in the media than 'tactical actions' (c.f. Miller and Chen, 1994), an intuitively feasible hypothesis. Thus, considering the illustration, it may be that business media generally perceive, for instance, cooperative actions between competing companies and product introductions to be more 'major' or 'strategic' actions than, say, actions concerning raising new capital, and therefore more actions concerning relational resources and product attributes were detected than actions concerning financial resources[225].

Next, if we consider the issue of actor notoriety, it may be that actions by 'celebrity companies' (like Google currently) or companies with 'celebrity' management members (like Steve Jobs of Apple Inc. currently) receive more press coverage than actions by less-known companies or companies with top management without particular fame. While this is not yet empirically established, company and management reputation has, nonetheless, been found to have some relevance in prior research. For instance, company reputation has been found to influence a company's ability to make contracts (Dollinger, Golden and Saxton, 1998) and overall company performance (Pharoah, 2003), while CEO reputation has been linked to the success of companies in general (Gaines-Ross, 2000)[226]. Thus, company and management reputation are meaningful constructs and may also affect the press coverage a company enjoys[227]. Thus, at least a partial reason why in the illustration competitive actions by Wal-Mart were detected more than those by Toyota, and in particular by Nokia, may be that Wal-Mart is, in the eyes of the reporters of the *Journal*, a more notorious company not only because of its sheer size but also because of its current controversial status.

Or, if we consider the notion of unusualness, it can, again, be the case that strategic actions are more visible in the media than tactical actions because at least "in some cases, strategic actions represent a major departure from industry norms" (Miller and Chen, 1994: 11), thus breaking away from patterned competition. Thus the introduction of innovative products and business processes may be reported in the business press more readily than other competitive actions. However, following Oliver and Myers (1999), it may also be that competitive actions which readily fit to some widely shared mental template are easier to report – and therefore receive more media coverage – than those which are more difficult to interpret. Considering again the results of the illustration, it can be, for instance, that straightforward product introductions are more readily reported (because they are more readily reportable) than, say, companies' decisions

[225] However, in the case of a company in the verge of bankruptcy, competitive actions concerning financial resources can be of substantial interest and, therefore, can be reported with heightened likelihood.

[226] But, more critically, CEO reputation has also been associated with CEO overconfidence (Hayward, Rindova and Pollock, 2004), which, however, can result in spectacular failures, which, in turn, are probably generally rather newsworthy.

[227] To be precise, in some studies celebrity is defined *as* heightened media coverage for a company or a manager of the company (see, e.g. Hayward et al., 2004).

to allow some of their financial options to lapse (because reporting such actions would involve more investigation concerning the competitive implications of the actions in order to make the news story interesting and easy to digest for the general audience of the business press). Nonetheless, to support the notion of some information fitting to a mental template, cognitive structures called 'schemas' have also been identified in managerial literature to be an essential means to organize, store and retrieve information (see, e.g. Dijksterhuis, den Bosch and Volberda, 1999; Shaw, 1990), thus facilitating 'sensemaking' (Harris, 1994; Thomas, Sussman and Henderson, 2001) of new information. Moreover, there seem to be no immediate reason to expect that reporters would differ from managers in this respect: easily interpreted information simply is easier to act upon.

It may also be the case that the presence of conflict or some other form of human drama influences business news in a similar manner as it influences political news. For instance, it may be that laying off a certain number of people is more likely to be reported in the media than the recruitment of an equal magnitude, because unemployment probably implies more drama than employment. Or, to consider another example, opening a retail outlet (or some other type of facility) in or near a controversial place most probably attracts more media attention than opening a similar outlet under 'normal' circumstances[228]. The notion of conflict may also be at least a partial reason why competitive actions concerning legal resources were, in particular with regard to Wal-Mart, detected in the illustration perhaps in a surprisingly high number compared to actions concerning physical resources, for instance: legal actions often (but not always) involve conflict (i.e. a legal dispute) and therefore such actions are generally of human interest.

2. The properties of the context in which the real-life event takes place. Now, if the newsworthiness of an event can depend on what has happened before, in the context of competitive dynamics this may mean that, for instance, a major corporate fraud as in the case of Enron may, quite rapidly even, bring business ethics into the spotlight (see, e.g. Cohan, 2002; Sims and Brinkmann, 2003 for discussions concerning Enron's case and business ethics) and therefore, the media becomes more receptive towards competitive actions concerning business ethics such as, say, adopting a new ethical code of conduct in a company, and allocating more publication space for such actions. In a similar vein, environmental issues (e.g. [alleged] global warming) and issues concerning sexual minorities (e.g. marriages of people of the same sex) have been recently visible in the media in general, and therefore organizational policies addressing these issues (i.e. certain competitive actions concerning organizational resources) are likely to be reported in the business press with a higher probability than, say, ten or twenty years ago. Indeed, such actions did surface in the illustration as well, even though not in remarkably high numbers.

[228] Actually, Wal-Mart's opening of a retail outlet near a Mexican ruined city Teotihuacan in 2004 received a substantial amount of press coverage (particularly when compared to an average store opening) because of the presence of the controversy between what Wal-Mart symbolizes in contrast to Mexican cultural history (see, e.g. Tuckman, 2004). Moreover, the action drew rather vocal protestors to the site, which, in turn, increased the magnitude of the controversy, and therefore press coverage.

Nonetheless, the notion of 'media attention cycle', on the other hand, most probably implies that certain issues, once having been subject to heightened media attention for some time, will eventually be replaced with new topics, and therefore different types of competitive actions will, in turn, become fashionable (not in terms of companies performing some competitive actions more but instead in terms of media reporting them more). Even though it has not, for the time being, been empirically demonstrated that different competitive actions would enjoy different levels of media coverage at different moments of time, a closely related phenomenon has been documented in managerial literature and practice: namely, 'management fads' (see, e.g. Gibson and Tesone, 2001; see e.g. Huczynski, 1993; Kieser, 1997) which evidently come and go in accordance with current managerial attention cycle: managerial issues are constantly being replaced by new ones.

Furthermore, the 'news hole' effect could mean that the chances of an individual competitive action being reported in the media depend on the number and newsworthiness of other actions, events and issues competing for the same publication space at the same time. Therefore, a spectacular competitive action by a notorious company (like the introduction of the iPhone by Apple Inc. in January 2007 or the [currently pending] purchase of Navteq by Nokia in October 2007) can be allocated so much publication space that certain less spectacular competitive actions are simply left unreported at that point of time. And, correspondingly, it may also be that seemingly insignificant competitive actions end up being reported in the media when the business news is otherwise 'slow'. Moreover, it can also be that certain competitive actions or actions by certain companies receive heightened media coverage with annual cycles because, for instance, Christmas and back-to-school sales are, at least in the United States, rather crucial for retailing companies like Wal-Mart (Gurau and Tinson, 2003; Smith and Achabal, 1998), and therefore retailing companies may be under close media inspection during such seasons.

And considering that consequential events receive heightened media coverage, in the context of competitive dynamics this might imply that competitive actions which are at least perceived to have the potential to have significant competitive consequences (i.e. 'disruptive' actions) get more press than other actions, because, for instance, reporting such actions may give a visionary impression of the reporter. Considering also the rather high number of actions concerning legal resources by Wal-Mart detected in the illustration, it may be that some of the legal disputes which Wal-Mart is involved in are capable of having major adverse financial (or other) impact on Wal-Mart, and therefore such disputes are extensively covered in the business media.

3. The routines of the reporting media. If I consider the issue of proximity first, it may be possible to suggest that many competitive actions are such by their nature that they do not really occur in a particular discreet *place* in the sense that political protests, for instance, occur. For instance, if Wal-Mart reduces the price of a particular product, it does not occur meaningfully in any one discreet place (or, alternatively, it occurs in a vast number of places [i.e. individual retail outlets]). Therefore, the notion of proximity may not apply straightforwardly to some – or perhaps many – competitive actions. However, some competitive actions like closing a production facility do occur in a discrete spatial setting. Now, if the issue of proximity applies to business press

reporting such competitive actions, it may be that competitive actions are best (both in a qualitative and quantitative sense) reported close to where they occur. Thus, if a company closes a production facility, it may be that it is relatively unlikely to be reported in a national media outlet (such as the *Journal*) but more likely to be covered in a regional or, better yet, local media. Thus, if one considers the relatively low number of competitive actions concerning physical resources detected in the illustration, it may be that an international major business publication like the *Journal* simply does not report, for example, establishments, closures or refurbishments of factories or retail outlets unless such actions have some additional significance. Indeed, considering production facility closures in particular, such an action is also likely to have more local than national real-life implications (in terms of unemployment, for instance) and, therefore, it is more likely to appear in local than national media.

Nonetheless, even if some competitive actions do not meaningfully occur in a discrete place, such actions are still usually *made* in a discrete place, like the company headquarters. Therefore, it may be that media sources physically near the headquarters (or a similar central decision-making place) of a particular company are more likely to report competitive actions by that company than more distant media sources. For instance, in 2006, the *Arkansas Democrat-Gazette* (subsequently: the *Gazette*) had more news mentioning Wal-Mart in the headline than the *Journal*[229] [230], even though the daily circulation of the former is circa 180,000, and the latter over two million (Audit Bureau of Circulations, 2007). Indeed, the relative higher propensity of the *Gazette* to report Wal-Mart-related content may be due to the fact that the headquarters of the *Gazette* are located in the same state, Arkansas, as the headquarters of Wal-Mart (some 200 miles between the two) and that its target audience is located in Arkansas, the home state of Wal-Mart (in the same sense as Finland is the home country of Nokia), whereas the headquarters of the *Journal* are located well over 1,000 miles away in New York. Therefore, it may be that reporters of the *Gazette* have, in contrast to those of the *Journal*, relatively good access to information concerning Wal-Mart, and, moreover, the readership of the *Gazette* is generally interested in information concerning Wal-Mart (including its actions) because they have some emotional (or other kind of) tie with the company (again, in the same sense as the Finnish people are generally interested in news concerning Nokia).

To proceed with the discussion, consider next the editorial practices. It is perhaps difficult to see that business press outlets, at least most of them, would have overt *political* editorial policies, which, in turn, would shape the content being published in any direct and obvious way in contrast to the research setting in political science. It may be, however, that some non-business-oriented media outlets may favor certain content over some other content because of such policies which, of course, affects the research of competitive dynamics if such sources are utilized as sources of competitive actions. For instance, a leftist newspaper is rather likely to devote more space to employee-related actions than to other types of actions, relatively speaking.

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[229] Content accessed via *LexisNexis*.

[230] The difference is not very significant, though: 167 (the *Gazette*) versus 145 (the *Journal*). However, if all stock market reports in the *Journal* are omitted from the number, the difference becomes somewhat greater.

However, what can, in the case of the business press, influence the content being published and, on the other hand, filtered out are the advertisers: a particular media outlet, like a newspaper or a periodical, may be reluctant to publish content which its advertiser(s) may find offensive or otherwise harmful. As an example of such a threat, in 1990 Toyota canceled its advertisements in *Road and Track*, a U.S.-based automotive magazine, after the magazine had included in its "10 best cars sold in America" list five cars by the rival company Nissan, but none by Toyota[231]. And finally, it may be that a company can itself influence what gets published in terms of its actions by, for instance, dispensing appealing press releases which provide information, the publication of which is in the interest of the company, and, correspondingly, by forbearing to release any information concerning an action it prefers not to be reported. This, in turn, may be at least a partial reason for the relatively low number of forbearing actions detected in the illustration: companies may not want to communicate their forbearances (i.e. something a company had considered doing which turned out not to be a good idea and thus was decided against) to the extent they communicate their 'active' actions.

6.5.4 Implications for research on competitive dynamics and with regard to the proposed typology

Now, what implications does this discussion concerning the media selection bias have for research on competitive dynamics in general and for the proposed typology in particular?

To begin with, the notion of media selection bias is of paramount importance for the research on competitive dynamics. After all, the vast majority of prior studies on competitive dynamics have relied on news sources: be it one newspaper like the *Aviation Daily* (Chen and Hambrick, 1995; Chen and MacMillan, 1992; Chen and Miller, 1994; Chen et al., 1992; Chen et al., 2002; Hambrick et al., 1996; Miller and Chen, 1994, 1996a, 1996b; Pegels et al., 2000; Shaffer et al., 2000; Smith et al., 1991; Smith et al., 1997)[232], or general business news media like the *F&S Predicasts* (Ferrier, 2001; Ferrier et al., 2002; Ferrier and Lee, 2002; Ferrier and Lyon, 2004; Ferrier et al., 1999; Lyon and Ferrier, 2002; Young et al., 1996) or an electronically accessed collection of general news sources (Más-Ruiz et al., 2005; Offstein and Gnyawali, 2005a, 2005b)[233]. Moreover, if some precautions have been taken to address possible biases, the usual manner has been to compare the appearance of competitive actions in some media outlets to some other media outlets of the same type (e.g. comparing some newspapers against some other newspapers)[234] [235].

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[231] "*Toyota pulls ads*", The Wall Street Journal, p. 3, section B, 12.12.1990

[232] Actually, the usage of the *Aviation Daily* is evidently so pervasive in competitive dynamics research that Shaffer et al. (2000), using that publication, explicitly "emphasize that a completely original data set has been compiled for (their) study." (p. 132).

[233] Non-news sources in prior literature include press releases of companies (Kotha et al., 2001), the *Official Airline Guide (North American Edition)* for data on flight route entries and exits (Baum and Korn, 1996, 1999) and executive interviews (Chattopadhyay et al., 2001).

[234] Notable exceptions to this norm are Kotha et al. (2001), who complemented actions found in press releases with actions found in certain news wire services, and Hopkins (2003) who complemented actions in business press with executive statements.

[235] It must be noted, however, that certain studies using the *Aviation Daily* have established the authority of this publication with regard to the aviation industry (i.e. justified using the publication in the first place)

Thus, even if precautions have been taken, the measures do not alleviate the potential bias inherent in the media source type itself.

Thus, whether or not such a phenomenon exists in the media relevant for the research on competitive dynamics should, of course, be investigated. In other words, it should be studied whether some competitive actions (because of their intrinsic properties, contextual surroundings or relation to media routines) enjoy higher media coverage than some other actions. And if so, it should be established what the more precise types of correlates of media coverage of an individual competitive action are in order to understand the nature of media selection bias in the business press in particular and possibly in order to take this phenomenon into account in research. It may well be, for instance, that forbearances are subject to less reporting than 'positive' actions, or that internally directed actions, on average, enjoy less media coverage than externally directed ones. Currently, we simply do not know.

In this respect the proposed typology may be helpful, because it – unlike any of the previous typologies – points out that forbearances are important types of competitive actions, and therefore enables subsequent research to address the possible the media bias concerning these particular types of actions. Moreover, as the proposed typology is industry-invariant, it facilitates, if this typology is used as a categorical instrument (i.e. 'coding scheme'), media selection bias investigation to be made regardless of particular industry contexts.

It can arguably turn out to be the case (even though this is rather doubtful in the light of the preceding discussion) that the selection bias in competitive dynamics-relevant media is virtually non-existent, and therefore can be neglected in empirical research. However, in the context of political science, this selection bias is of substantial magnitude, as attested by Oliver and Maney in their study of patterns in political protesting: "[i]n the present study, the year-to-year difference in news coverage of protests was large enough to completely distort the apparent shape of the protest cycle" (2002: 495). Therefore, the issue should not be taken lightly, as it may have very concrete implications on the results of empirical research in particular.

Now, if the media selection bias comes into play also in competitive dynamics-relevant media (and, I believe, there is every reason to expect that it does, until proven otherwise), what can be done to enhance the quality of competitive action databases in this respect?

In general, as Maney and Oliver point out, there is "a need for more research on methods for collecting event data" (2001: 132-133) which, no doubt, would, in the context of competitive dynamics research, mean using various sources in addition to newspapers like the *Aviation Daily* and the *Wall Street Journal*. Whereas in the context of political science complementary data sources have taken the form of, for instance, police records (such as event permissions and arrest records), in the case of competitive dynamics research this could translate into annual reports,

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with surveys for airline executives and other industry professionals (Chen and Miller, 1994; Chen et al., 1992; Chen et al., 2002; Hambrick et al., 1996; Miller and Chen, 1994; Smith et al., 1991).

company histories, interviews of management and other industry observers, and various forms of archival material. Indeed, it may be that internal company sources provide richer access to competitive actions of the forbearing type since it is probable, as discussed above, that such actions become reported less frequently than 'positive' competitive actions.

Moreover, with respect to the use of media sources themselves, one obvious possibility would be using a number of (in contrast to just a few, or only one) different media outlets (cf. Myers and Caniglia, 2004), which in the case of newspapers would mean incorporating regional and local newspapers to the list of sources (cf. Oliver and Myers, 1999). Furthermore, this would allow the researchers of competitive dynamics to approach the notion of 'microstructure of competition' (Bromiley et al., 2002) as localized competitive engagements may not surface in national media. After all, Maney and Oliver posit that "it is well established that the national media overlook large numbers of events covered in local or regional media" (2001: 134)[236]. In addition, it is also intuitively feasible to assume that competitive actions by smaller companies are better covered in smaller media outlets geographically close to where the companies operate than in national outlets. Fortunately, the advent of news aggregating services such as *LexisNexis* facilitates such multifaceted sourcing strategies because usually these services provide access to hundreds, if not thousands, of different media sources and offer the content in electronic, searchable form (Myers and Caniglia, 2004).

In this respect, the proposed typology should, to begin with, contain no particular limitations which would render its use with certain type of material difficult or impossible. Indeed, if the general theory of competition is believed to capture (in a high level of abstraction, though) all domains of competitive action, and, moreover, if the theory of action is accepted to address all varieties of elementary intentional action, it is reasonable to expect that it should be possible to categorize all types of competitive actions with this typology, regardless of their source.

It must be admitted, however, as Maney and Oliver point out, that "[t]here are no perfect records of collective events, nor are there perfect methods for gathering all of the collective events in any given source" (2001: 164-165), but there should be no immediate reason, other than the fact that it usually consumes more research resources (Ortiz et al., 2005), why triangulating different sources would not be a sound research strategy in the research on competitive dynamics as well.

[236] However, Mueller (1997b) points out that regional or local sources may bring additional problems with them by noting that such sources may lack competitors, in which case if such a source decides not to report something, there are no alternative sources to report that, either.

PART THREE

DISCUSSION AND CONCLUSIONS

7 DISCUSSION

In this chapter I will discuss about the central findings of the study and the methods employed with which the findings were obtained. In particular I will contemplate the implications that my research approaches may have had with regard to the findings and, moreover, what I could have done differently (and why I did not pursue these alternative courses of action). Thus, the discussion will be rather reflective by its nature.

I will first focus on conceptual aspects, the first part of the study (Chapter 2), and, after that, turn my attention to the typological aspects, the second part of the study (Chapters 3 through 6). Moreover, I will conclude the discussion by deliberating the notion of forbearance in particular because it is perhaps the most central concept that sets the proposed typology apart from any other prior typology of competitive actions.

7.1 On Conceptual Aspects

The conceptual aspects to be discussed stem mainly from the theoretical perspectives I have employed in developing the definition for competitive action: the philosophical theory of action and the theory of competitive advantage in strategic management. Let me discuss each of these perspectives in turn in order to reflect how these perspectives may have shaped my findings and what criticism can be raised towards these theoretical choices.

7.1.1 Competitive action as intentional action

By applying the philosophical theory of action to studying competitive actions, it must be assumed that the philosophical theory of action actually applies to collective action (i.e. actions by collective actors like companies). Even though I argued that this assumption is justified, not only intuitively (as we commonly attribute actions to collective actors in everyday discourse), but also according to a prominent standpoint in the philosophical theory of action (e.g. because some actions like greeting or marrying are impossible for individual actors) there is still a vocal alternative standpoint, according to which collective agency (i.e. treating collective actors as singular actors) is not justifiable. According to this latter view all actions are always reducible to individual actions (i.e. actions by individual human beings), and therefore responsibility judgements, for instance, must always concern individual actors and never some 'artificial' collective actor.

While the controversy has not been resolved yet in the philosophical literature, if one is to apply the philosophical theory action in the context of competitive action, the former position – that of acknowledging the possibility of singular collective actors – must be assumed. Otherwise, applying the philosophical theory of action to competitive action – actions by collective actors – is not theoretically justified, or, alternatively, one faces the practically impossible task of tracing competitive actions to actions by a myriad of individual human beings. In a practical sense the notion of collective action is also supported by two additional facts. First, in organizational theory in general, and in the literature of competitive dynamics in particular, the notion of collective action – actions by companies – is not generally contested in any way: companies are readily assumed to be meaningful (singular) actors. And secondly, the empirical tradition in competitive dynamics has used business news as the primary source for competitive actions, and, furthermore, in business news the notion of collective action is generally assumed to be meaningful (e.g. reporting in the lines of "company *X* did *y*"). Thus, from a competitive dynamics standpoint the notion of collective agency is not exceedingly, if at all, troublesome.

However, when applying the philosophical theory of action in the context of competitive action, some creative effort is required, since the vast majority of work in the philosophical literature on the theory of action is carried out by studying individual actions. And, furthermore, some classical prime examples and prominent thought experiments either discuss solely bodily movements (such as raising one's arm) or at least involve some bodily movement in a central role (such as shooting someone by pulling the trigger of a weapon).

To give some concrete examples, one very popular thought experiment used in the philosophical literature to discuss and refine the notion of intentionality (i.e. what counts as intentional action

and what does not) is one person killing another. The variants of this thought experiment include, for instance, the following:[237]

- Person *A* wants to kill person *B* for financial benefit. While driving to the home of *B*, *A* (accidentally) runs over *B* with his/her car and kills *B*. (Brand, 1989; originally in Chisholm, 1966)
- Persons *A* and *B*, independently, want to kill person *C* for some reason. Each of them shoots, at the same time, *C* and hit *C*. However neither of the gunshots is fatal to *C* but in combination they are and, therefore, *C* is killed. (Fischer, 1998)
- Person *A* wants to kill person *B* for some reason. While he/she is aiming at *B* with his/her gun he/she starts to have second thoughts, which, in turn, make him/her nervous. His/her nervousness results in his/her hands starting to shake which, in turn, result in the trigger being pulled (in accident) and, therefore, *B* is fatally shot. (Kane, 1999)
- Person *A* wants to kill person *B* for some reason. *A* shoots at *B* but misses. However, *B* is alarmed by the gunshot and for this reason escapes to a place where he/she is killed by an unexpected stroke of lightning. (Chisholm, 1964)
- Person *A* wants to kill person *B* for some reason and *B* knows this. *A* forces his/her entry into the home of *B* and upon the entry *B* has, because of being surprised and exceedingly scared, a heart attack which, if not treated immediately, will be fatal. *A* does nothing to save *B* even he/she could have done and *B* dies. (Philips, 1987)

Since the prominent examples which the philosophical theory of action discusses in terms of the notion of intentionality are like those above (although not all examples, by any means, involve homicidal cases), applying this theoretical body of knowledge to competitive action has necessitated in this study some creative work when adapting the discussion to the context of actions by companies. Therefore, if the thought experiments discussed in Chapter 2 seem laborious for some readers, the reason most probably lies in this process of adaptation, since according to my best knowledge applying this theoretical perspective to competitive action has not been done previously.

Nonetheless, I have tried, throughout this discussion of intentionality (in the light of the philosophical theory of action) in competitive action, to be faithful to the style of the philosophical tradition involving thought-experiments in developing the criteria of intentionality, and therefore the conceptual part of the study contains more or less imaginative descriptions of hypothetical actions by hypothetical companies. This style, I believe, is helpful in order to explicate the structure of the reasoning in this regard and is hopefully illustrative to the reader in following the reasoning, even though this practice is not widespread in managerial literature.

It must be noted, however, that in this study I am not concerned in any way with *ethical* responsibility judgments of companies' actions in the way that some literature of philosophical

[237] In all cases the central question is whether the focal person killed the victim intentionally (i.e. whether or not the focal person is responsible for the death of the victim).

theory of action is (see, e.g. Brink, 1992; Duff, 1982; Moore, 1961). Instead, in this study I am, with regard to the notion of intentionality according to the philosophical theory of action, only interested in the circumstances in which it is feasible to say that a company has performed an action intentionally, regardless of the ethical status (or possible different interpretations concerning this status) of the action.

Even so, the notion of intentionally can still be somewhat troublesome despite there being certain specific criteria for an action to qualify as an intentional action. This trouble, as noted by Knobe and his colleague (Knobe, 2004; Knobe and Burra, 2006), has to do with the so-called 'side effects' of an action, and, more precisely, whether such side effects are (perceived as) positive or negative. Put differently, people tend to *perceive* intentionality somewhat differently if an action produces negative (harmful) side effects in contrast to positive (beneficial) ones. Consider, for instance, two examples Knobe and his colleague (ibid.) have used in their research (differences underlined):

1. (The 'harm vignette'): The vice-president of a company went to the chairman of the board and said, 'We are thinking of starting a new program. It will help us increase profits, <u>but</u> it will also <u>harm</u> the environment.' The chairman of the board answered, 'I don't care at all about <u>harming</u> the environment. I just want to make as much profit as I can. Let's start the new program.' They started the new program. Sure enough, the environment was <u>harmed</u>.
2. (The 'help vignette'): The vice-president of a company went to the chairman of the board and said, 'We are thinking of starting a new program. It will help us increase profits, <u>and</u> it will also <u>help</u> the environment.' The chairman of the board answered, 'I don't care at all about <u>helping</u> the environment. I just want to make as much profit as I can. Let's start the new program.' They started the new program. Sure enough, the environment was <u>helped</u>.

In their empirical test, responders (ordinary people) were substantially more likely to say that the chairman intentionally harmed the environment than to say that the chairman intentionally helped the environment. However, the original experiment was conducted in an English-speaking setting (Knobe, 2004) and it was subsequently found that in a Hindi-speaking setting the results were considerably different (Knobe and Burra, 2006), suggesting that the language conventions or the cultural setting also affect the judgments concerning intentionality of an action.

Therefore, the five criteria adapted from Mele and Moser (1994) and put forward in this study may not yield absolute, non-disputable truths about intentionality, but should perhaps rather be used as guidance when evaluating whether or not a particular (competitive) action is an intentional or unintentional one.

However, from the viewpoint of cognitive psychology the 'side effect' phenomenon is not astonishing because often peoples' *perceptions* are not entirely consistent with *facts* or *definitions*. For instance, it is well-established in cognitive psychology that number 3 is consistently perceived as

a more typical instance of an odd number than number 447 (Armstrong, Gleitman and Gleitman, 1983; Bloom, 1996), even though, theoretically speaking, "it makes no sense to judge some numbers as odder than others" (Bloom, 1996: 2). Therefore, the 'side effect' phenomenon may be argued to be merely a curiosity of the human mind, thus not to be confused with formal criteria for intentionality. However, the notion of intentionality is, in the philosophical literature, usually discussed and developed through thought examples, the very function of which is to test authors' and readers' *perceptions* with regard to interpretations in different cases. Therefore, it is probably better to acknowledge the 'side effect' phenomenon in intentionality interpretations rather than to dismiss it.

Nonetheless, it must be born in mind that the work by Mele and Moser (1994), upon which the examination of intentionality in action in this study essentially is built, also enumerates an additional criterion for an action to qualify as intentional action. I omitted this criterion from discussion in this study, as it is concerned with handling so-called 'difficult cases' of intention with more sophistication. However, this criterion would, no doubt, have elaborated the notion of intentionality further, but this criterion is, with regard to the aims of this study, not very straightforward or particularly essential[238].

However, even though this study has mainly focused on the notion of competitive action (as intentional action) in a competitive setting, this is not to say that other kinds of events are inconsequential as to how the competitive setting evolves over time. For instance, a destructive event like the burning down of a major production facility of one of the competing companies may well have competitive implications, because such an event may, for example, significantly reduce the total production capacity of the industry (thus raising the prices of the products, for instance), and hamper the production ability of one of the competitors (thus alleviating the competitive pressures experienced by the rest of the competitors). In a similar vein, actions by parties other than competitively interacting companies such as the regulatory authorities or special interest groups may well influence the competitive situation. Indeed, in the literature on strategic management it has long been acknowledged that deregulation (brought about by regulatory authorities) is capable of significantly altering the competitive setting in an industry (e.g. Reger, Duhaime and Stimpert, 1992; Smith and Grimm, 1987). Thus, I do not claim that the dynamics of competitive interaction is *only* affected by competitive actions by rivalrous companies, even though my primary focus in this study is on such actions.

[238] This additional criterion is developed with a series of thought experiments involving litmus paper accidentally used as a concert admission slip, stunt parachuting under variable wind conditions, and playing an imaginative ball game involving an X-ray machine (Mele and Moser 1994: 52-58) and reads as follows: "*S A*-s intentionally at *t* only if (a) at the time of *S*'s actual involvement in *A*-ing at *t*, the process indicated with significantly preponderant probability by *S*'s on balance evidence at *t* as being at least partly constitutive of her *A*-ing at *t* does not diverge significantly from the process that is in fact constitutive of her *A*-ing at *t*; or (b) *S*'s *A*-ing at *t* manifests a suitably reliable skill of *S*'s *A*-ing in the way *S A*-s at *t*." (Mele and Moser 1994: 57, italics in original)

7.1.2 Competitive action as seeking for competitive advantage

In this study I defined competitive action as *an intentional action which is performed by a company, because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.*

As the definition implies, competitive actions which are not intentional actions are not competitive actions, either (i.e. an accidental achievement of competitive advantage, for instance, can not qualify a competitive action). However, are all intentional actions by companies competitive actions? In other words, can there be intentional actions by companies which are *not* performed with achieving or maintaining competitive advantage as a goal? Or, put yet another way, is the definition for competitive action, intentionality aside, all-encompassing?

In principle, the answer to the last question is negative. The definition does not suggest that all intentional actions by companies are competitive actions. Nor does anything else in this study suggest that. Therefore, as far as the definition is concerned there can certainly be intentional actions by a given company which are not performed because the company desires to achieve or maintain competitive advantage and believes that such actions will contribute to the fulfilment of this desire. Whether, in turn, empirical instances of such actions can be found is, again in principle, a different question.

However, from a practical standpoint the situation may not be so straightforward, for at least two reasons.

First, it is admittedly reasonable to expect that in actuality very few intentional actions by companies are not performed with achieving or maintaining competitive advantage as a goal, because, after all, what would be the rationale for a company to perform such an action? But then, it might be argued that some actions which are mandatory (ordered by regulatory authorities, for instance) but detrimental to the performance (financial or otherwise) of a company are not competitive actions because the company is forced to perform such actions. However, another take on this would be to argue that such actions are still competitive actions, because even though the goal is not *achieving* competitive advantage, the goal most likely still is *maintaining* competitive advantage (preventing it from dissipating) because if the company were not to perform a given mandatory action it would be hurt (again, financially or otherwise) even more (e.g. facing sanctions of some kind). After all, even though the action is mandated, the company, in most cases, can still choose to forbear (i.e. not to perform the mandatory action) and face the consequences: the company does usually have a choice here. Forbearing to perform a mandatory action can, in fact, be even rational in some cases if the sanctions would hurt the company less than performing the mandated action. In this case, of course, the competitive action would be of the forbearing type (e.g. forbearing to bring about a certain mandated state of affairs). What, then, about illegal or otherwise unethical actions? Such actions, after all, are generally disapproved of because they straightforwardly violate the law or, in the case of unethical actions, generally are disapproved of (or otherwise considered reprehensible). Again,

the current definition of competitive action would, if performed intentionally with achieving or maintaining competitive action as a goal, grant such actions the status of competitive action, because this study does not concern itself with ethical or moral judgments on companies' actions. Moreover, prior research suggests that companies may in actuality engage in illegal or unethical behavior as they strive for competitive advantage (Bromiley and Marcus, 1989; Hosmer, 1996; Schwab, 1996).

Second, it may be in practice very difficult to observe why a given action was performed by a company. In other words, it may not be very easy to know the intentions of a company when it performs an action. (In a similar vein, with regard to the notion of intentionally more generally, it may be empirically rather difficult to ascertain whether or not an action was performed in accordance with an action plan, and so on.) However, this difficulty is not peculiar to competitive action (as intentional action) alone. Instead, the question of how to know the intentions of an actor (not only as an external observer, but also, and noteworthily, as the actor himself/herself) has puzzled philosophers for decades (see, e.g. Gustafson, 1974; Pink, 1991; Shoemaker, 1988; Whiteley, 1971). Therefore, it is doubtful – given the long and unresolved discussion in the philosophical literature on the issue – that I can provide any specific guidance here as to how to determine the intentions of a company in the time it performs a given action.

Nonetheless, it can also be that intentional actions by companies which are *not* performed with achieving or maintaining competitive advantage as a goal are difficult to come across, both intuitively and empirically simply because such actions are, in fact, exceedingly rare. After all, as noted above, why would a company intentionally perform an action which is not intended to yield or preserve competitive advantage in some way? The reasons for doing so may indeed be very scarce. Therefore, with regard to intentions, it may be operational to assume a default position according to which a competitive action is performed by a company in order to achieve or maintain competitive advantage, unless there is a compelling reason to believe otherwise.

However, as also noted above, the current definition of competitive action does not concern the existence or non-existence of such actions; the definition only necessitates that competitive actions are such actions that are performed by a company because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfillment of this desire.

7.2 On Typological Aspects

The typology of competitive actions put forward in this study can, of course, be seen as a proper typology, and therefore the typology is subject to certain critical discussion (especially with regard to its relation with the real, empirical world) which, however, is mainly not specific to this particular typology. Nonetheless, I will reflect these critical viewpoints generally and particularly with regard to the current typology. Moreover, apart from being a typology (a categorical system), the current typology can also be seen as a conceptual system (as it enumerates a number

of concepts for subsequent use and referral), and this perception also warrants a brief reflective discussion. However, let me turn my attention to the 'proper' typological aspects first.

7.2.1 Competitive actions as ideal types

As noted earlier, the typology of competitive actions put forward in this study – as any typology – enumerates ideal types, in the spirit of Weber (Weber, 1949), which, in turn, entails that it is expected that pure empirical instances (conforming to the standards of ideality completely) may not be found, or that such pure empirical instances are very rare. Thus, the empirical instances that surface in empirical material (e.g. in pieces of business news) are expected to contain elements that are not included in the ideal types of competitive actions or elements which necessitate decision-making between two or more ideal types (i.e. making the empirical instances vague when compared to the ideal types). Thus, it is, no doubt, possible to argue that such expectations undermine to some degree the typological approach in and of itself.

However, this potential criticism can be countered from at least three points of view.

First of all, this is an inherent feature of a typological approach – any typological approach, that is. In other words, if one is to embark on typological development one can not avoid this phenomenon. Indeed, Doty and Glick (1994) note that typologies are valuable *because* they outline a parsimonious theoretical framework for depicting multifaceted phenomena – and this parsimony is achieved primarily by cutting down variability in the phenomena under examination, by specifying ideal types. However, they also note that reducing variability comes with a cost, which is the very inherent feature in typological approaches under discussion here: empirical reality in most, if not all, cases is substantially more complex than that specified by any typology. However, Doty and Glick, despite this cost, still hold typologies in high regard, because typologies[239] "have stimulated a tremendous volume of empirical research and captured the imagination of many scholars, managers, and students" (1994: 230). Moreover, from a more general standpoint, considering typologies as classificatory instruments, they are invaluable because "[w]ithout classification, there could be no advanced conceptualization, reasoning, language, data analysis or, for that matter, social science research" (Bailey, 1994: 1). Thus, despite the inherent disconnect from or, perhaps better, simplification of empirical reality with its indefinite variability typologies – as such and as classificatory instruments – have substantial value for research both in general and in the case of organization research in particular.

Second, this inherent feature of typological approaches has not apparently been considered as a major obstacle in organization theory thus far. Indeed, some of the most powerful and widely used theoretical frameworks in organization theory in general and strategy theory in particular are typological by their nature, with very modest anticipation that empirical instances of research subjects would meet the ideal types specified by those typologies completely. Such well-known

[239] In particular they refer to organizational typologies, a certain variety of typologies in organization theory.

typological approaches include, for example, typologies of generic strategies (e.g. Miles and Snow, 1978; Mintzberg, 1988; Porter, 1980), typologies of different organizations (e.g. Blau and Scott, 1962; Etzioni, 1961; Hall and Tittle, 1966; Julian, 1966; Kimberly, 1976; Parsons, 1956a), or modes of international entry (e.g. Agarwal and Ramaswami, 1992; Robinson, 1978).

And third, typologies, and in particular two–dimensional graphical representations of those, seem to be intuitively appealing and useful, especially in the practice of management, as suggested by Lowy and Hood (2007). And, indeed, if one leafs through practically any strategic management textbook, one is virtually immersed with the number of two-dimensional representations of typologies. Thus, typologies apparently occupy a central role in managerial (and educational) strategic management discourse.

However, with regard to the relation between real-world instances of competitive actions and those ideal types specified by the typology put forward by this study (or, for that matter, by any typology of competitive actions), there are two presumably more real potential problems: discovering those instances and mapping them onto the ideal types.

As to discovering empirical instances, all prior research on competitive dynamics has searched for competitive actions from some recorded medium or media, most notably from business news. While using news media is a standard practice, not only in the research on competitive dynamics but in addition in other action- or (more generally) event-related research traditions in political science, for instance, all media, like news media, may be subject to biases. These biases may distort the reality in two primary ways. First, there may be bias with respect to *what* is recorded and what is not recorded (i.e. some competitive actions get reported while some do not). If this bias is present, some competitive actions do not appear in the data (while some others do), even though such competitive actions have indeed been performed. Second, there may be bias concerning *how* things are reported (i.e. how different competitive actions are portrayed in the reporting). If this bias is present, the essence of some competitive actions gets distorted so that the reporting does not reflect the true essence of the action which, in turn, distorts the mapping of empirical instances onto ideal types. However, what the *true* essence of each competitive action is, of course, usually, if not always, is a matter of interpretation and, moreover, depends on the interests of the interpreter.

To illustrate the latter issue – *how* competitive actions are portrayed in the media – consider one exemplary competitive action by Wal-Mart, one of the sample companies in the empirical illustration in this study. In one piece of news it was reported that Wal-Mart had doubled its storage capacity for business related data (Vincenti, 1999), thereby enhancing its ability to utilize such data in enhancing the efficiency and effectiveness of its operations[240]. Thus, the competitive action type would be bring about, informational resources[241]. In this case one can get different

[240] Titled "*Wal-Mart upgrades information systems*".

[241] It may be argued that since the action is about information *storage capacity* the action could concern physical resources instead of informational resources. However, the essence of the action more probably is about Wal-Mart's *ability to utilize* data in business development rather than mere ability to store

views with regard to the nature of this action depending on the piece of news one chooses as one's source. For instance, in another piece of news[242] it was reported, concerning the very same action, that Wal-Mart had "announced major initiatives to expand the level of cooperation with its merchandise suppliers" at an annual supplier conference which initiatives *included* the *plan* to expand the data warehouse (PR Newswire, 1999b), whereas in another piece of news[243], reporting about the same issue, it was reported that NCR Corporation, a data storage technology supplier, had announced that Wal-Mart "*has* more than doubled the size of its data warehouse" based on NCR's technology (PR Newswire, 1999a, italics mine). Moreover, in the latter case it was reported that the expansion had taken place "over the past year", implying not a single implementation but a gradual upgrading process. And, in yet another piece of news[244] reporting the same issue it was reported that Wal-Mart now offered 101 terabytes (instead of previous 44 terabytes) of *information* to its suppliers, meaning that the suppliers "now will have two years worth of information available through the company's Retail Link program instead of the usual five quarters" (DNS Supercenter & Club Business, 1999). In this case, with regard to technological issues, it was merely mentioned that the system runs NCR's database system and computer hardware.

Now, depending on the piece of news of choice, one may get somewhat different insight on what has taken place. According to the first piece of news, Wal-Mart had increased its ability to store and process business-related data whereas the second piece of news reported that Wal-Mart had announced initiatives which were intended to result in expanded support for its suppliers which, among other things, included the data warehouse expansion. Thus, in the second case, the announcement essentially concerns future supplier-related plans of Wal-Mart and, furthermore, if one does not proceed to read the whole piece of news through, it does not become clear that the data warehouse expansion has already taken place. However, even if this did become apparent, the main emphasis in the piece of news is in Wal-Mart's intention to "expand the level of cooperation with its merchandise suppliers" and the data warehouse issue is reported as a relatively minor detail as a part of this plan. Then, the third piece of news is written from NCR's point of view, as it reports an announcement which NCR has recently made, according to which the company has supplied, over the past year, certain data storage technology to a particular company, Wal-Mart. And, in the fourth piece of news, it is claimed that Wal-Mart offers more information to its suppliers instead of having more capacity to store such information as it will accumulate over time.

Therefore, depending on which piece of news is chosen (or simply detected), one gets a rather different portrayal concerning what the essence of the action is.

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information. Thus, here the action is interpreted to concern the informational resources of the company.

[242] Titled "*Wal-Mart announces initiatives to expand supplier support*".

[243] Titled "*NCR more than doubles data warehouse for world's leading retailed to over 100 terabytes*".

[244] Titled "*Wal-Mart offers more retail link data*".

Furthermore, one particular issue concerning the interpretation of actions has to do with the orientation towards the future often present in news reporting of (potential) competitive actions. Namely, it is often the case that in the news is reported something a company *will do* or has decided to do *in the future* – even in an immediate one – but has not yet done. Let me consider again the second exemplary piece of news concerning Wal-Mart discussed just above (PR Newswire, 1999b), according to which Wal-Mart has announced initiatives which are aimed at expanding cooperation with its suppliers. If one, in this case, does not choose to focus on the data warehouse issue reported as a minor detail but rather perceives that the action, as the piece of news implies, is concerned with Wal-Mart's relations with its suppliers (thus concerning the relational resources of Wal-Mart), what interpretation is one to make here? Has a competitive action taken place or not? After all, it is reported that Wal-Mart has "announced major initiatives" which are also referred to as a "plan". This rhetoric gives the impression that Wal-Mart intends to do something, most probably in accordance with this plan in the future, but all that has taken place in actuality is an announcement concerning particular future courses of action. Is one to rely on the word of the company that the announcement is sufficient evidence for the actions to materialize and therefore treat the announcement as an actual (but not yet performed) action, or must one remain skeptical about the intended actions until the corresponding action is actually performed and can be observed? The strict approach would, of course, be the latter one: actions are not to be recorded in research based on announced intentions before the substantive actions have taken place. This is, theoretically speaking (from the perspective of the philosophical theory of action in particular), most probably the only justified stance. However, in practice it may well be that once an intention to perform a certain action has been announced and reported, the actual action is no longer newsworthy (because the issue is no longer novel) and, therefore, the actual action may not be reported at all or is reported only in a 'minor' source. Concerning the focal piece of news (PR Newswire, 1999b) under discussion here, the news sources available in this study[245] do not explicitly report subsequent actual actions by Wal-Mart which could illustrate how the plan eventually unfolded. One possibility for this could, of course, be that the plan was not actually carried out, but judging by the fact that the cancellation of the plan was not reported either (which most probably would have been newsworthy), it is rather likely that the implementation of the plan in the form of discrete actions simply did not make the news in the light of the news sources available in this study. Thus, if in this case one chooses to ignore Wal-Mart's statement concerning its intentions for some future courses of action for expanding its cooperation with its suppliers (or some other alternative reading of the piece of news), one can not record this course of action at all, which, nonetheless, may be a significant one if one is interested in the competitive behavior of Wal-Mart. Or, alternatively, one records the action in accordance with the available facts and considers only the storage technology purchase and implementation without the aspect concerning supplier relations.

[245] *LexisNexis* subscription with an access to 2,606 English language news sources including major business publications like the *Financial Times* and *Wall Street Journal*

However, in this regard forbearances are a different matter in that a decision to forbear *is* the action: if Wal-Mart states that it has decided *not* to discontinue selling a particular product (c.f., e.g. Schwartz, 2003), the action, forbearing to do something, has taken place. If, however, it is subsequently observed that Wal-Mart has actually discontinued selling the product, it does not, at face value, mean that Wal-Mart did not act according to its initial decision (if there is no additional evidence for this), because Wal-Mart may just have had second thoughts about the issue and decided, perhaps in a new situation, to act differently. In this sense, therefore, forbearances are more straightforward to interpret than 'positive' actions.

Nonetheless, one possible and feasible way to counter possible media biases (apart from demonstrating that such biases are non-existent) is to employ several different sources for competitive actions. Such sources, in addition to traditionally employed news sources, could include, for instance, annual reports, company histories, interviews of management and other industry observers, various forms of archival material, and perhaps even direct observation of executive decision-making. Such multi-source research strategy could help to reduce both forms of media bias. First, using multiple sources would, no doubt, increase the coverage of competitive actions of a company since it is in practice impossible that different (independent) sources would record the competitive actions of a company identically. And second, using multiple sources would enhance the ability of a researcher to determine the essence of competitive actions reported in multiple sources, because in such cases multiple sources allow triangulation to be employed. Moreover, if such rich information concerning the competitive actions of a company is available, the researcher may be better able to interpret the essence of each action, because he or she would be better equipped to look 'beyond words' (i.e. not merely taking for granted what each datum [e.g. a piece of news] reports).

Nonetheless, regardless of data sources used in empirical research, the proposed typology of competitive actions offers one particular benefit for subsequent competitive dynamics research. Namely, since the typology is purely theoretically derived (i.e. independent of any particular empirical competitive context or data), it specifies the variety of competitive actions *in theory* which allows, if employed in empirical research setting, researchers to detect the *absence* of certain competitive actions if one or more of the sample companies, in the light of the data at hand, have not used one or more action types enumerated in the typology. This is noteworthy because, according to my best knowledge, all prior typologies of competitive actions have *not* included action types which did not appear in the data which they were used to categorize.

The notion of ideal types includes – at least implicitly – the assumption that any empirical research subject is an instance (albeit in most cases not a pure one) of a one and only one ideal type. Or more concretely, typological approaches usually assume that empirical instances must be assigned to one and only one typological category. Thus, typological categories are often seen as mutually exclusive in the empirical sense. However, this assumption is challenged by fuzzy logic (see, e.g. Zadeh, 1965; Zadeh, Klir and Yuan, 1996), which posits that a research subject can not only belong to several categories simultaneously, but, additionally, can have varying degrees of membership (instead of merely belonging or not belonging) in those categories. In a similar vein,

fuzzy logic also includes the notion of a 'fuzzy set', which in effect posits that the members in a given category can have varying degrees of membership in that category (i.e. belonging more or less to that category) in addition to having possible memberships (again, in varying degrees) in other categories (ibid). This observation is noteworthy because in addition to more technical sciences, also in organization science fuzzy logic/set approaches have, after a cautionary encouragement by Tilanus (1981), gained in popularity, thus challenging the traditional notion of bivalent condition, according to which an instance either belongs or does not belong to a given category. Indeed, the fuzzy set approach has been employed in organization science to study, for instance, corporate internal control systems (Cooley and Hicks, 1983), assigning fuzzily perceived linguistic values like 'weak', 'medium' and 'strong' for variables under examination (fuzziness arising here from the fact that there is no precise threshold value for these linguistic values; a variable can be simultaneously, for instance, somewhat weak and somewhat strong). Fuzzy set approach has also been employed in research on product categorization (Viswanathan and Childers, 1999), supply chain management (Petrovic, Roy and Petrovic, 1999), investment evaluation (Abdel-Kader and Dugdale, 2001), competition in oligopolistic markets (Greenhut, Greenhut and Mansur, 1995), and production efficiency (Triantis and Girod, 1998), to name but a few examples. Thus, an obvious question is that how does the proposed typology relate to this stream of research concerning fuzzy logic?

Admittedly, the practice I employed in the illustration of the proposed typology was, consistent with the dominant practice in the research on competitive dynamics, to assign each empirically detected competitive action to one and only one category. Moreover, as noted above, the typological approach itself, consistent with Weber (1949), usually has an implicit assumption about the mutual exclusivity of typological categories, and therefore it may be argued that the proposed typology carries this implicit assumption as well. However, even though the proposed typology does enumerate discrete ideal types, I can see no particular obstacle in using the proposed typology also as a classificatory instrument in an otherwise fuzzy approach. Indeed, at least the domains of action may straightforwardly be perceived fuzzily: for instance, an action by which a company issues a bond to finance a new production facility may, if the researcher so wishes, belong to both financial resources and physical resources, and, furthermore, with different degrees of memberships (e.g. higher degree of membership in financial resources than in physical resources). On the other hand, however, the elementary actions may be more troublesome in this sense because these categories were derived logically and, moreover, the logic employed was of the traditional variety (i.e. non-fuzzy). Thus, it may be difficult to conceive how an action might, at the same time, belong to two or more categories of elementary actions (such as bringing about and forbearing to bring about). But such actions may still exist. For example, an action by which a company introduces a policy explicitly forbidding a certain or any form of employee discrimination may, at the same time belong to both 'bring about' (the policy) and 'suppress' (discrimination) categories. And indeed, a fuzzy approach might, in fact, greatly help to alleviate interpretation problems (i.e. to which typological category a given empirically detected competitive action should belong) like those encountered in the illustration in this study (Chapter 6). Thus, there should be no particular major obstacle in applying the proposed typology in such research which intends to utilize otherwise a fuzzy logic/set approach.

7.2.2 Theoretical premises in constructing a typology

As Bailey (1994) suggests, nearly everything that can be classified (either typologically or taxonomically) can be classified in multiple different ways. To give an example from everyday life, consider, for instance, motor vehicles. Such vehicles can be assigned to categories according to people- or load-carrying capacity, driving power, exhaust emissions, fuel consumption, top speed, purchasing price, or body colour –to name just a few possibilities. Which basis, then, is the best for categorizing motor vehicles?

Obviously, this is generally not a very meaningful question in an absolute sense, because the goodness of any classificatory choice depends on the context in which (or the task for which) the choice is made. Thus, if governmental motor vehicle *usage* taxation is of interest, currently (at least in Finland) the prominent basis for categorization is the exhaust emission (the rationale being taxing motor vehicles based on their ecological impact [harm])[246]. Or, if the corresponding motor vehicle *purchasing* taxation is under examination, then perhaps the most suitable choice would be the purchase price (or that in conjunction with some other property such as exhaust emissions)[247]. However, for some people buying a new car the fuel consumption or even the body colour may be a prominent organizing classificatory variable, whereas for car tyre manufacturers the top speed may be of central interest (since different tires are approved for different maximum speeds). And furthermore, for petrol stations and oil refineries the driving power (gasoline, diesel, natural gas, electricity, etc.) may be the most important classificatory property (e.g. what percentage of vehicles uses which driving power in a given country). Thus, the goodness of an organizing classificatory principle in the case of motor vehicles clearly depends on the context in which, or the task for which, the classification is used.

Similarly, to take another example, scientific articles can be meaningfully classified according to their general type (if the distinction between conceptual, empirical and review articles is of interest), by subject matter (if a certain topic is of interest), by method employed (if the usage of a certain method in different contexts is of interest), by journal (if the publication profile of a certain journal is of interest), by author (if the bibliographical record of a certain author is of interest), and by a quality measure of some sort such as the citation count (if the central works of different subject fields are of interest), all of which yield different classificatory system and corresponding classificatory results.

Or, to take yet another example, from organizational theory, organizational typologies in this literature have also employed a variety of different organizing principles. For example, Parsons has organized his typology in terms of type of goal or function upon which an organization is organized (1956b), whereas other approaches include the relationship between an organization

[246] I'm not, however, taking any stance whether or not such taxation is justified or not as such (c.f., e.g. Rothbard, 1962, 1970, 1973, 1982).

[247] As above.

and its members (Gordon and Babchuk, 1959), compliance patterns in organizational communication (Etzioni, 1961; Julian, 1966), degree of bureaucracy (Hall and Tittle, 1966), main beneficiaries (Blau and Scott, 1962), and the size of an organization (Kimberly, 1976). Even though some of these typologies have faced academic critique, there is still no sense in claiming that some organizing classificatory principle is *always* better than some other: the goodness of such a principle depends on the purpose of the classificatory system.

Thus, practically any classificatory system – including typologies – can be arranged in various ways, none of which is absolutely better than any other. Instead, the goodness of the choice of organizing principles (in the case of a typology the choice of underlying theoretical premises) is context-dependent.

Therefore, the typology of competitive actions can be constructed, no doubt, upon various theoretical premises as well. For instance, if the competitive impact of various competitive actions is of interest, it may be well-grounded to formulate typological categories according to the significance or strategicality (cf. Miller and Chen, 1994), or irreversibility (cf. Chen and MacMillan, 1992; see also Appendix 3) of actions. Or, if mere challenge-response dynamics (i.e. who challenges and who responds) is under examination, then it may suffice to categorize competitive actions into initiative and responsive actions, with additional information concerning the corresponding actors. Furthermore, if the geographical activities of companies are of central interest, it may be feasible to categorize competitive actions according to the countries (or some other geographical areas) in which they are performed. With a little imagination one can, no doubt, enumerate several additional feasible possibilities for different purposes.

Furthermore, in some instances it may be feasible to employ a different structural arrangement for the classificatory system. While most of the prior typologies have been unidimensional and the proposed one is two-dimensional, Lamberg, Laurila and Nokelainen (2005) have employed a three-dimensional structure in an industry-specific typology of competitive actions in the forest industry. Moreover, Lamberg (2005) has used a notably different approach altogether: his classificatory system, specific to the forestry industry as well, is arranged as a binary system which comprises a series of yes/no questions, which, furthermore, are not mutually exclusive. Additionally, for each competitive action, there are four series of such questions producing a bitmap-like classificatory result.

Nonetheless, in this study the selected theoretical premises for the typology are the philosophical theory of action and the general theory of competition (i.e. the resource-advantage theory of competition). The rationale for this is basically the fact that the philosophical theory of action addresses the question concerning the variety of different (elementary) actions, whereas the theory of competition discusses the means of (domains of decision concerning) competition. Put simply, I have basically argued that by combining the variety of actions with the variety of competitive decision domains the variety of competitive actions can be meaningfully addressed. Furthermore, I preferred the theory of competition of choice – the general theory of competition – over significant alternative theories of competition to a substantial degree because

its underlying assumptions fit best those of competitive dynamics, the stream of literature within strategic management to which I intend this study to contribute most directly. Moreover, I should also note that the underlying assumptions of the general theory of competition, from its inception, are intended to be as close to the everyday reality of firm competition as possible (Hunt, 2000; Hunt and Morgan, 1995), and, therefore, this theory of competition "mirror[s] reality" (cf. Chiles, Bluedorn and Gupta, 2007: 478) rather well indeed.

Moreover, I have intended that this choice of theoretical premises results in a context-invariant typology: the typology does not, to begin with, contain any inclination towards any particular industries, types of industries, particular companies, types of companies, points of time, geographical settings, etc. Instead, I have intended the theoretical premises to be as general as possible in order to allow the typology be employed in as diverse empirical contexts as possible. Thus, I intend the typology to capture the *substantive* nature of competition (the qualitative essence of competitive actions) in a rather general level.

Is this decision concerning the theoretical premises a good one? Perhaps the best answer is that time will tell: if subsequent competitive dynamics research adopts the typology and starts to employ it in empirical research the decision most certainly has been a good one (especially if the typology is widely adopted). However, as the illustration of the applicability of the typology (Chapter 6) suggests, the proposed typology can be meaningfully applied in an empirical research setting: all empirically detected competitive actions could reasonably and meaningfully be assigned into typological categories (even though there were, with regard to certain action types, some interpretation challenges, as discussed above), and, furthermore, the illustration revealed that even with a very limited company and source sample competitive actions of the forbearing type did surface – a notion practically neglected in all prior typological approaches in competitive dynamics.

However, as already noted, particular categorical premises can not *always* be better than some other such premises. Thus, it is certainly true that the proposed typology of competitive actions is not suitable in all empirical research settings – or at least in certain empirical research settings some other categorical premises may be more feasible. After all, if the geographical occurrence of competitive actions is of most interest, it is certainly more feasible to categorize the actions according to the geographical areas of their occurrence than to use the proposed typology in its present form. It must be noted, however, that nothing disallows the current typology being supplemented so that for each detected competitive action not only the domain of action and the elementary nature of the action is recorded, but in addition also its geographical occurrence. This, in turn, would turn the typology into a three-dimensional one.

7.2.3 The typology of competitive actions as a conceptual system

The proposed typology of competitive actions can be perceived also as a conceptual system in addition to a categorical system. That is, I intend the typology also to facilitate discussion about

competitive actions among scholars of competitive dynamics and other interested parties about competitive actions as it enumerates types of competitive actions for subsequent referral. In this regard it is also imperative that the typology is as general as possible (e.g., not particular to a certain industry or type of industry) in order to render the typology useful in multiple contexts.

However, it may be argued that the concepts (i.e. typological categories) put forward by the typology are somewhat arbitrary, because, as some scholars on cognitive psychology posit, the real world (including competitive interaction by companies, too) is not discrete, coming in natural 'chunks', but instead is continuous and, therefore, concepts only reflect cultural projections of the structure of the mind (López, Atran, Coley, Medin and Smith, 1997; Newell and Bülthoff, 2002). However, according to this view, because nature is inherently continuous, *all* concepts are arbitrary, and therefore this arbitrariness is not peculiar to the concepts in the proposed typology but instead is characteristic of every concept[248].

According to this point of view on concepts within cognitive psychology, the interpretation challenges discussed with respect to the illustration of the applicability of the proposed typology are only expected, since concepts are usually more or less vague as they are to a large extent social constructions (Solomon, Medin and Lynch, 1999). Furthermore, not only does the content of a concept (what is understood by a concept) vary from individual to individual and from time to time, but also some, if not most, concepts are inherently vague. Consider, for instance, the lexical concept 'summer'. In this case it may be somewhat vague when the appropriate concept to refer to a certain moment of time is 'summer' instead of 'spring' or 'autumn'. Or, to take a more striking example, consider 'justice'. Even though dictionaries may have a definition of this concept[249], it is still very much subject to interpretation whether a given action, for instance, corresponds with the notion of justice. Therefore, as the proposed typology is a conceptual system, it specifies typological categories, which, according to a view prominent in cognitive psychology, are expected to be vague because this is an inherent feature in most concepts (lexical concepts or otherwise).

However, what sets the concepts in the proposed typology apart from those concepts studied in cognitive psychology is the fact that cognitive psychology usually focuses on concepts in the natural language (such as 'scissors', 'opossum', and 'purple'), whereas the proposed typology enumerates non-natural language concepts which are theoretically derived (even though such concepts are expressed using concepts of the natural language such as 'bring', 'about', 'physical', and 'resources'). Therefore, the concepts put forward by the proposed typology are not a result of social conventions evolving over a considerable period of time – as in the case of natural language – but are rather formed based on certain theoretical premises. Thus, it is not possible to make an equally strong case supporting these concepts in contrast to folkbiological studies in

[248] However, there is also a different view on this matter in cognitive psychology, which attests that different concepts are formed by following the natural discontinuities that the real world exhibits (Love, Medin and Gureckis, 2004; Rosch and Mervis, 1976).

[249] E.g. "the quality of being just; righteousness, equitableness, or moral rightness" (Webster's, 1994) or "the quality of being just, impartial, or fair" (Merriam-Webster, 2003)

cognitive psychology (see e.g. Coley, 1995; Ross, Medin, Coley and Atran, 2003; Sousa, Atran and Medin, 2002; Waxman, Medin and Ross, 2007; Wolff, Medin, and Pankratz, 1999), which, in essence, posit that the human mind has evolved to structure its knowledge into collections of related concepts (or categories), because the survival of mankind from its early dawn has been dependent on the ability to classify animals and plants, for example, into harmful and beneficial. Therefore, the concepts enumerated by the proposed typology are considerably more arbitrary in contrast to natural language concepts with respect to the natural world in particular. However, the arbitrariness of the concepts in the proposed typology depends mainly on the arbitrariness in the underlying theoretical premises themselves: since I have adopted the categories put forward by the underlying theoretical premises as such (supplementing one of the theoretical premises with one additional category), the conceptual arbitrariness of the typology rests first and foremost on the conceptual arbitrariness in the underlying theoretical premises.

From the cognitive psychology point of view it is also useful to note that the typology is not arranged hierarchically. This is a noteworthy remark because usually the conceptual systems studied in cognitive psychology – the conceptual systems people commonly use in everyday discourse – are arranged hierarchically.

However, to support the non-hierarchicality of the proposed typology as a conceptual system, there is also evidence within cognitive science that, while people commonly do arrange conceptual systems hierarchically with regard to concrete items (such as 'table', 'car' and 'clock'), this seems not to be true for abstract items (such as compete actions). Indeed, Wiemer-Hasting et al. (2004) suggest that while people's conceptual structures for concrete concepts are arranged hierarchically (e.g. 'furniture' as a top-level concept, followed by sub-concepts like 'table', 'chair' and 'lamp', and further for 'table' by corresponding sub-concepts like 'dining room table', 'kitchen table', and so on), the corresponding concept structures for abstract concepts (like competitive actions or different feelings like 'jealousy' and 'anger') are instead arranged thematically. Correspondingly, the arrangement in the proposed typology is closer to thematic arrangement than hierarchical arrangement because the underlying theoretical premises provide a number of thematic categories (e.g. physical resources, relational resources), the combination of which produces the categories in the typology. In this sense the typology – even with regard to its graphical representation – resembles the periodic table in chemistry (i.e. the categorical arrangement of chemical elements), which is arranged two-dimensionally using groups (the horizontal dimension arranging chemical elements according to their general properties [into e.g. metals, alkali metals, halogens and noble gases]) and periods (the vertical dimension arranging chemical elements according to trends in properties like ionization energy and electron affinity) as the organizing thematic dimensions. The arrangement of the proposed typology is not to suggest, however, that people (e.g. managers of companies or reporters of the business press) actually precisely employ this thematic structure when mentally categorizing competitive actions. Instead, I only posit here that the non-hierarchicality of the concept structure put forward by the proposed typology is in line with recent research in cognitive science ,which suggests that abstract conceptual systems are, in general, not arranged in a hierarchical manner. However, with regard to concept structures of concrete items, the notion of hierarchicality is very prominent.

Indeed, Murphy and Lassaline (1997) note that if people are asked to freely list concepts of concrete items in a given domain without any further instructions, most people will produce a hierarchically arranged list. Furthermore, numerous ethnobiological studies have empirically demonstrated that concept structures of 'living kinds' (i.e. plants and animals) that people possess and use are organized hierarchically (Coley, Hayes, Lawson and Moloney, 2004; Coley, Medin and Atran, 1997; López et al., 1997).

As a final conceptual remark, it is possible to argue that the concepts (typological categories) in the proposed typology are not labeled very imaginatively, as those basically combine the concepts (categorical labels) from the underlying theoretical premises (e.g. 'bring about', 'physical resources'). In this sense the typology is, no doubt, not as 'catchy' as some other typologies in organization science such as the typology of generic strategies put forward by Miles and Snow (1978), who labeled their four ideal types quite vividly as 'Defender', 'Prospector', 'Analyzer' and 'Reactor'. Thus, the proposed typology admittedly pales in comparison to the typology of Miles and Snow, for instance, because the categorical labels are not as vivid. However, it must be born in mind that the proposed typology does not enumerate just a few ideal types, but 64 of them, and coming up with appealing labels for all of them would probably require considerable creative effort. In addition, it is doubtful whether such creative labeling would, in the end, enhance the usability of the typology: presently the categorical labels are, I feel, rather straightforward to use as the current approach for labeling does not try to force compelling vocabulary on the ideal types. Thus, even though the concepts in the category are not imaginatively vivid, they are, I believe, *practical*.

7.3 On Forbearing in Particular

While developing a theoretically rigorous definition for competitive action and, moreover, constructing a theoretically-derived typology of competitive actions provide contributions to the literature on competitive dynamics, I feel that perhaps the most significant contribution of this study is the fact that it, with the typology, highlights the importance of forbearing in competitive interaction. According to the discussion throughout this study, I have time and again suggested, in the spirit of the philosophical theory of action, that forbearing is equally action as 'positive' (or 'active') action.

It is true, however, that the notion of forbearance is, to some degree, present in management theory with the notion of 'mutual forbearance' (e.g. Boeker, Goodstein, Stephan and Murmann, 1997; Gimeno, 1999; Gimeno and Woo, 1999; Haveman and Nonnemaker, 2000; Korn and Baum, 1999; McGrath, Chen and MacMillan, 1998). Mutual forbearing refers to behavior among competing companies in which such companies, *together*, forbear to engage in competitive behavior (ibid.). However, when comparing mutual forbearing to discrete competitive actions of the forbearing type, consider the following definition of mutual forbearance by Golden and Ma: "the ceding of control of one product or geographic market to a competitor in exchange for that competitor's acquiescence in another market" (2003: 479). Thus, mutual forbearance refers, as

the name suggests, to behavior in which both or all the involved competing companies engage in forbearing behavior across two or more markets most probably because doing otherwise would hurt the performance of them all. Moreover, mutual forbearance occurs among companies "operating in multiple common markets" (Golden and Ma, 2003: 479), that is, among companies engaged in 'multipoint competition' (Smith and Wilson, 1995).

While the notion of mutual forbearance is, no doubt, highly valuable in management and strategy theory, it describes the forbearing behavior under rather specific circumstances. Therefore, the notion of forbearing I have discussed in this study is inherently more general because it does not limit itself to specific situations, but instead acknowledges that companies can choose to forbear, in the form of discrete competitive actions, at any point in time, regardless of the competitive situation they face: thus, forbearing is completely equal with 'positive' actions with regard to competitive behavior, as attested by the philosophical theory of action.

However, the equal status of forbearing (with regard to 'positive' action) is not peculiar to the philosophical theory of action, but instead is well-established in numerous other contexts as well.

For instance, in the realm of medical ethics, the notion of forbearing, equal with 'positive' action, is in a central role in one central controversial topic: the difference between withholding and withdrawing life-sustaining treatment (e.g. Begley, 1998; Melltorp and Nilstun, 1997). In this context forbearing is referred to as withholding, 'letting someone die' (i.e. passive euthanasia, not preventing a death), whereas 'positive' action takes the form of withdrawing, similar to 'active killing' (i.e. active euthanasia, causing a death) (ibid.). Furthermore, the reason why the discussion is significant in medical ethics is, according to Melltorp and Nilstun (1997), the fact that less is known about the patient's prognosis when a decision to withhold (forbearing to provide life-sustaining treatment) is made while the decision may be fact-wise easier to make than later on, but once the treatment has been started, withdrawing the decision ('positive' discontinuation of providing this treatment) is harder because it may be seen as breaking the promise of continuing the treatment for the patient or his/her family, even though the patient's prognosis is more accurate to estimate. However, Begley (1998) notes that from a legal standpoint there may be no difference as to withholding and withdrawing life-sustaining treatment (because death will occur in both cases), but still the distinction is intuitively appealing because in everyday reasoning (intentionally) actively doing something is usually seen to carry more responsibility than (intentionally) not doing something, and hence the continuing discussion concerning this topic in medical ethics.

However, despite the presence of the withholding/withdrawing debate in medical ethics, for instance, it may still be possible to attack the notion of forbearing as such. Boniolo and De Anna (2006) note that a common set of critiques against the notion of forbearing are that 1. the ontology of actions would be infinite because there are an infinite number of things people do *not* do, 2. performing an action takes time, but forbearing ('omission' in their vocabulary) takes no time at all, 3. actions are causal (i.e. actions cause something) but forbearances are not (forbearances do not cause anything), and, therefore, 4. forbearances are not events and thus do

not meaningfully exist. However, they proceed to counter this criticism by noting that in such critique the central notions such as 'action' and 'cause' are perceived exceedingly narrowly, and, moreover, point out that one can, for example, cause one's death by forbearing to eat, and further note that most people are very aware that forbearing to perform bodily movements in a dentist's chair has, for instance, a very meaningful temporal duration.

Even if this argumentation by Boniolo and De Anna (2006) was not convincing, in psychological literature it is well acknowledged that people (real human beings, that is) engage in both 'positive' actions and forbearances (sometimes called 'inactions'). However, from a psychological perspective the two may not be perceived equally (in a qualitative sense) by most people. For instance, Landman (1987) posits that people tend to have more regret about 'positive' action than forbearing. However, Gilovich, Wang, Regan and Nishina (2003) suggest that the reverse is true if the time perspective is long enough: people tend to regret forbearances (something they have not done, despite the opportunity to do so) in the long term more than their 'positive' actions. Savitsky, Medvec and Gilovich (1997), in turn, posit that the (long-term) prominence of regret of forbearances ('omissions' in their vocabulary) over 'positive' actions ('commissions') is due to the so-called 'Zeigarnik effect' (Zeigarnik, 1927), which suggests that people tend to remember incompleted tasks better than completed tasks. Thus, as 'positive' actions are more easily forgotten, forbearances remain better in the memory, and therefore are easier to recall in the long run. Indeed, the psychology of forbearances seems to be rather interesting in other respects, too (see, e.g. Anderson, 2003), and therefore also probably worth closer study in managerial literature also (which, after all, essentially examines human behavior). For instance, Tykocinski, Pittman and Tuttle (1995) and Arkes, Kung and Hutzel (2002) have demonstrated that under certain circumstances an initial forbearance tends to produce 'inaction inertia': initial forbearance creates a tendency for subsequent forbearances. As to 'inaction inertia' in particular, the phenomenon is also documented in stock market trading behavior (Orit, Roni and Thane, 2004) and consumer purchasing decisions (Zeelenberg and van Putten, 2005).

And finally, to highlight the importance of forbearing – especially the difficulty of it – the vast literature on addictions is first and foremost concerned with forbearing: how to enable people to forbear to act with regard to what they are addicted to – be it alcohol (e.g. Cloninger, Sigvardsson and Bohman, 1988), narcotics (e.g. Heather, 1998), tobacco (e.g. Tønnesen et al., 1988), gambling (e.g. Griffiths, 1990), internet use (e.g. Brian and Wiemer-Hastings, 2005), or near-death experiences (e.g. Joseph, 1982).

Thus, to conclude, forbearing is central not only from a philosophical point of view but, in addition, and essentially, because it is both intuitively and demonstratedly consequential and, from time to time, rather difficult.

8 CONCLUSIONS

In this final chapter of the study, I will first revisit the central findings of the study and discuss about how I see the study contributing to the relevant stream of literature, competitive dynamics. This discussion is organized according to the two research questions, which I outlined in the beginning of the study, and supplemented with my conceptions about the practical (i.e. managerial) implications of the study. After this, I will address the potential limitations of the study which I see mainly stemming from the theoretical premises I have selected to build upon and from the methodological choices I have made. The chapter will then conclude with a discussion with regard to the implications for future research, essentially in the competitive dynamics stream.

8.1 Contributions of the study

This study has been concerned with competitive action, a central notion (the unit of analysis) in competitive dynamics, a research stream within strategic management which views competition as the exchange of initiative and responsive actions between rivalrous companies (Chen et al., 1992; Ferrier et al., 2002; Ferrier et al., 1999; Grimm et al., 2006; Smith et al., 1992; Young et al., 1996). Accordingly, within competitive dynamics the use of competitive actions is seen as a central factor explaining the success and failure of (or, more generally, performance differentials across) companies (Ferrier et al., 1999). Thus, competitive dynamics maintains that in order to understand the nature and outcomes of competition, one has to examine how companies exchange competitive actions.

While competitive dynamics has yielded noteworthy results, and in general made considerable progress, both in empirical and theoretical terms over the past nearly two decades, there are

certain aspects which have been inadequately addressed in that literature, which I have in this study attempted to address. Namely, and first, to date there has been no theoretically rigorously developed definition for competitive action, which, after all, is the unit of analysis in this stream of research. And second, to date there has been no theoretically rigorously developed typology of competitive actions (addressing the [theoretically] possible variety of different competitive actions available for companies).

Accordingly, these apparent inadequacies translated to the research questions of this study:

Research question 1: What is competitive action, theoretically speaking (and, thus, what is it not)?

Research question 2: What is, theoretically speaking, the possible variety of competitive actions available for companies in a competitive setting?

Let me now discuss each of the research questions in turn with regard to how I see this study has contributed to the literature on competitive dynamics.

8.1.1 Research question one: The concept of competitive action

In prior literature it is quite widely accepted that competitive actions are intentional actions, actions done for a purpose. For this reason, I have set myself the task of clarifying the notion of competitive action – as intentional action – by discussing the notion of intentionality. The rationale for doing this is the fact that since competitive actions are intentional actions by companies, then it follows that actions by companies which are *not* intentional actions can not be competitive actions either. Therefore, in this study, I have examined the notion of intentionality in some detail.

In doing so I have used the philosophical theory of action as a central underlying theoretical premise – a stream of literature in which the notion of intentionality is studied in substantial length and detail (see, e.g. Dennett, 1968; Fleming, 1964; Gustafson, 1981; Mele and Moser, 1994; Miller, 1975; Setiya, 2003). However, before applying the philosophical theory of action to competitive action, I have demonstrated that this manoeuvre is theoretically justified; that philosophical theory of action can be meaningfully and defensibly applied to collective actors such as companies in contrast to individual actors like individual human beings (c.f. Bratman, 1992; Cooper, 1968; Held, 1970; Tuomela, 1989; Velleman, 1997). Nonetheless, the discussion of intentionality, building centrally upon Mele and Moser (1994), yielded five criteria – all exemplified in the context of competitive action – which an action by a company must satisfy for it to qualify as an intentional action (and therefore potentially as a competitive action). Furthermore, as competitive actions are intentional actions by collective actors, I have adressed the relationship between individual action and collective action, again by drawing from the philosophical theory of (collective) action (essentially French, 1984; Tuomela, 1989) by outlining

additional criteria which must be satisfied for an individual action to qualify as a component action for a collective action (i.e. when an employee of a company such as the CEO acts in his/her capacity as an employee and when as an individual and company-independent human being).

While viewing competitive actions as intentional actions implies that if an action by a company is to be granted the status of competitive action it must be an intentional action (i.e. satisfy the criteria of intentionality), this assertion does not operate in reverse. In other words, not all intentional actions by a company are competitive actions. This is evident in the light of prior literature on competitive dynamics, as practically all prior definitions for competitive action have given some *goal* for competitive action (what a company desires with competitive action). Or, put otherwise, if all intentional actions by a company would qualify as competitive actions, no references to goals would be required ,and this, clearly, is not the case in terms of the spirit of the prior literature.

Since the philosophical theory of action is generic in that it does not discuss the qualitative nature of intentions in any specific context of action, I have discussed the intentions – what is desired by a company with a competitive action – using the literature on strategic management as the underlying body of knowledge.

In that discussion, it became very apparent that what is desired by a company with a competitive action is, according to the literature on strategic management in general (e.g. Ketchen et al., 2004; Porter, 1991), and in the spirit of competitive dynamics in particular (e.g. Chen and Hambrick, 1995; Chen and Miller, 1994; e.g. Smith et al., 1991), gaining (i.e. increasing) or maintaining (i.e. preventing form dissipating) competitive advantage. Furthermore, by relying on the notion of competitive advantage (e.g. Barney and Hesterly, 2006; David, 2007; Wheelen and Hunger, 2006), it was possible – or, perhaps better, necessary – to argue that some of the restrictions present in prior definitions for competitive action must be relaxed. For instance, for an intentional action by a company to qualify as a competitive action, it is not necessary that it is detectable by any external observer (like a competitor) – in contrast to some prior views (e.g. Ferrier and Lyon, 2004). In a similar vein, in contrast to some prior definitions (e.g. Ferrier et al., 1999), competitive actions can, by all means, concern only the internal matters within a company.

Furthermore, according to the philosophical theory of action (e.g. Ehring, 1985) and the Austrian school of economics (e.g. von Hayek, 1937; von Mises, 1949), an underlying theoretical premise in competitive dynamics, for an intentional action by a company to qualify as a competitive action it suffices that a company *believes* that such an action will yield or maintain competitive advantage – whether this actually turns out to be true or not is immaterial.

Eventually, the conceptual discussion, incorporating the above-outlined theoretical development, yielded the following definition for competitive action:

> Competitive action is an intentional action which is performed by a company because it desires to achieve or maintain competitive advantage and believes that the action will contribute to the fulfilment of this desire.

To recapitulate, the conceptual discussion provides five contributions to the literature on competitive dynamics.

First, I put forth a rigorously theoretically derived definition for competitive action. This is noteworthy, because, as my review of prior literature on competitive dynamics exhibited, prior definitions have, at best, made certain references to prior literature (either on competitive dynamics or, more generally, on strategic management) but none of those has explicitly shown how the definition employed is derived.

Second, building upon my discussion concerning intentionality I put forth specific criteria for assessing whether a given action by a company is intentionally performed and is therefore, potentially, a competitive action. Put differently, these criteria refine the above-mentioned definition for competitive action in addressing the notion of intention in that definition more in detail. In practice, these criteria provide specific guidelines to *disqualify* certain actions from being competitive actions.

Third, my discussion concerning collective agency provides more clarity, again, in the form of specific criteria in determining when an employee of a company acts in his or her capacity in representing a company, and, the other way around, participates in a company's action, and when in his or her capacity as a company-independent private citizen. Thus, these criteria, too, refine the definition of competitive action as they address the notion of collective agency ("…performed by a company…") more in detail.

Fourth, considering the conceptual discussion as a whole, I emphasized that a competitive action does not necessarily create direct competitive pressure on competing companies, because it suffices that a company *believes* a certain action is capable of yielding or defending competitive advantage (regardless of the actual outcome), and because competitive actions can (or even should) remain unnoticed by any external observer, and furthermore because competitive actions can concern only the internal affairs within a company. Even though these assertions may be troublesome with regard to empirical research, I believe that from a theoretical standpoint they are very much justified.

Fifth, and finally, I believe that in the conceptual discussion I have been able to demonstrate that the philosophical theory of action can be meaningfully applied in strategic management in general and in competitive dynamics in particular. By doing so, the study helps to bridge 'structural holes' (Burt, 1992) between the philosophical and strategic management literatures as

it "export[s] ideas from one part of a social network into another, where they are less familiar … thus adding value" (Chiles et al., 2007: 467).

8.1.2 Research question two: The variety of competitive actions

To begin with, I have acknowledged the challenge by Hambrick, who has posited that scholars of strategy research need feasible classification systems and "thus, some strategy research needs to be devoted strictly to the development of these systems" (1984: 28), since the proposed typology of competitive actions can essentially be seen as a classificatory instrument.

In order to develop such a 'feasible classification system' (meaning a typology in the case of this study) which does not suffer from industry-specificity, a particular deficiency in several prior typologies of competitive actions, I have argued that it is imperative that the present proposed typology must be explicitly built upon generic (i.e. not specific to certain industry or industries or point or points of time, for example) theoretical premises, which, at the same time, are able to capture the essence of competitive action. As such theoretical premises I have selected the philosophical theory of action (e.g. Chisholm, 1964; Rayfield, 1968; von Wright, 1963) addressing the elementary types of actions (i.e. what kinds of actions there, in general, can be) and the general theory of competition (e.g. Hunt, 1995, 2000; Hunt and Arnett, 2003; Hunt and Morgan, 1995) addressing the domains of action in a competitive setting. When combined, these theoretical premises address the variety of competitive actions – addressing aspects concerning both action and competition – and therefore provide the dimensions for the proposed typology of competitive actions.

As the philosophical theory of action enumerates eight elementary actions, and the general theory of competition, in turn, another eight domains of action (originally seven, supplemented with one additional domain added by me), the proposed typology, in synthesizing these perspectives, enumerates 64 different types of competitive actions, all of which are context-independent in that they, I firmly believe, apply to any kind of competitive setting in which companies compete by exchanging such actions.

Furthermore, I have compared the proposed typology against prior typologies of competitive actions in the literature on competitive dynamics and applied the typology as an illustration in an exemplary empirical setting. As to the comparison, I demonstrated that the proposed typology enumerates a substantially broader variety of competitive actions because, of the 64 types, only 12 were explicitly present in prior typologies. And in the illustration concerning the applicability of the current typology I demonstrated that the typology is reasonably applicable in an empirical research setting.

In particular, the philosophical theory of action, one of the underlying theoretical perspectives in the typology, underscores the notion of *forbearing* (i.e. intentionally choosing not to perform a 'positive' action). Indeed, according to this perspective, forbearing is equally action as 'positive'

action, and therefore half of the action types in the current typology are of the forbearing type. However, none of the prior typologies takes the notion of forbearing into account in any way. The importance of forbearing also became apparent in the illustration of the empirical applicability of the current typology since in the illustration competitive actions of the forbearing type did, indeed, surface (even though not in an equal quantity with 'positive' actions).

To summarize, with regard to the typological development, I feel that I am able to provide five contributions to the literature on competitive dynamics.

First of all, the current typology is, to my best knowledge, the first typology of competitive actions which is rigorously and explicitly theoretically derived. Indeed, all prior typologies (even though usually not explicitly called typologies by their authors) I have reviewed in this study have been based either on action types of which some empirical action sample has included (i.e. what competitive actions some companies have actually used during some period of time), or, in the case of some airline-related studies, have adopted action types by one prior empirical airline industry-specific study (Levine, 1987).

Second, the current typology enumerates, according to proper typological principles (e.g. Bailey, 1994; McKelvey, 1975; Weber, 1949), types of competitive actions which are *theoretically possible* instead of detected in a given empirical sample. Therefore, with the current typology it is not only possible to classify empirical instances of competitive actions, but in addition, and centrally, detect the *absence* of certain competitive actions in a particular empirical sample – a notion which has not been fully taken account in prior empirical studies in competitive dynamics – which are theoretically possible, yet empirically undetected. This feature is not, however, peculiar to the current typology alone, but instead is an inherent feature in any typological approach (Bailey, 1994; Weber, 1949).

Third, as the theoretical premises of the current typology are not specific to any particular competitive setting (such as an industry, a geographical setting or a point of time), this typology can be applied to study competitive interaction, regardless of the empirical setting. I must note, however, that in this respect the current typology is not unique: some of the prior typologies have also been context-invariant in this sense (e.g. Ferrier and Lyon, 2004; Ferrier et al., 1999; Oliva et al., 1988; Young et al., 1996), but when compared to such typologies, the current typology offers a substantially wider variety of competitive actions with rigorous theoretical derivation.

Fourth, the current typology, when compared to prior typologies of competitive action, offers a substantially richer insight on the variety of competitive actions, since it enumerates several competitive action types which are not present in prior typologies.

Fifth, and finally, the current typology, referring to the philosophical theory of action (e.g. Chisholm, 1964; Rayfield, 1968; von Wright, 1963), highlights the importance of the notion of *forbearance* in competitive dynamics. Not only does the current typology include such actions, but

in addition in the theoretical discussion in developing the typology, I time and again posited that actions of the forbearing type are equally actions (and hence equally important actions) as 'positive' actions, while actions of the forbearing type are totally absent in all of the prior typologies of competitive actions.

8.1.3 Practical implications of the study

First and foremost, this study, by providing a rich typology of competitive actions, suggests that competitive interaction among rivalrous companies may be more multifaceted than previously thought. Namely, if the competitive behaviour of competitors is of interest, say, for business intelligence reasons, there is a substantial difference if one categorizes (formally or mentally) their competitive actions into two or six categories instead of those 64 categories enumerated by the proposed typology. In other words, the proposed typology allows competitive actions to be categorized with greater resolution than any of the prior industry-independent typologies reviewed in this study, thereby allowing competitive behaviour to be observed more in detail. Therefore, the competitive behaviour of a company which seems patterned (similar over time) may turn out to be variable if examined with higher resolution (i.e. with more categories of competitive actions).

Second, I highlight the notion of managerial misjudgement (e.g. Greve, 1998) by positing that it suffices, for an intentional action by a company to qualify as a competitive action, that a company *believes* that the action can result in or preserve competitive advantage. Put differently, a given competitive action is not necessarily beneficial for the company performing it (because of the possibility of managerial misjudgement). Therefore, I suggest that it is highly advisable to carefully assess the competitive implications of any competitive action by a competitor prior to responding instead of mechanistically feeling compelled to respond: the beliefs of the competitor may not fully correspond to the real world. Again, it may be sometimes wise to *forbear* to act.

In this study I also highlight the competitive importance of such competitive actions which concern the internal aspects of a company (in contrast to being externally directed towards to the market). In this respect this study is by no means unique in the general context of strategic management in which it is very well-established that aspects internal to companies can be a significant source of competitive advantage. However, this aspect is rarely, if ever, fully acknowledged in the literature of competitive dynamics, which has been mostly concerned with externally directed competitive actions. Nonetheless, with regard to business intelligence activities, I strongly suggest that one can not gain an appropriate comprehension concerning the competitive behaviour of competitors (i.e. how they aspire for competitive advantage) if one focuses only on such actions that directly mount competitive pressure on other companies. Instead, one must pay attention equally to such actions that concern their internal operations (e.g. the efficiency and effectiveness of manufacturing and organizational processes).

In a similar vein, I emphasize, consistently with Chen (1996), that competitive actions which remain undetected (by the industry press, for instance) are very powerful for gaining and maintaining competitive advantage just for that reason: such actions are likely to attract very few, if any, responses. Moreover, as I suggest in the media-related discussion, some actions are likely to go unreported in the media, even though reporters could detect them. Therefore, I urge managers to look beyond traditional information sources like the business press in tracking the competitive behavior of their competitors, because some actions are likely to be absent in such sources. Correspondingly, I suggest that companies should, from time to time (or, perhaps better, as a general rule) try to decrease the visibility of their competitive actions in order to reduce the likelihood of responses to those actions.

And finally, with the notion of forbearance I suggest that companies should not only observe what their competitors do, but also, and equally, take into account what their competitors have decided *not to do* despite a possibility or even a temptation. Thus, if a manager subscribes to the view commonly held in competitive dynamics that one can observe the strategy of a company – a competitor, for instance – to unfold through its actions, such actions must, I argue, also include forbearances because a strategy specifies not only what to do (in a 'positive' sense), but also, and essentially, what *not* to do, both in general and under certain particular circumstances.

8.2 Limitations of the study

This study is essentially a theoretical study in that both the definition for competitive action and the typology of different competitive actions were theoretically derived. Therefore, the central limitations of this study concern the appropriateness of the selected theoretical premises.

First, the conceptual part is founded on the philosophical theory of action and on the literature on strategic management. While the latter body of knowledge is probably appropriate (since competitive dynamics is included in the literature on strategic management), the selection concerning the former may be questioned. For instance, the entire notion of collective agency – which I have assumed to be applicable in this study (though, by demonstrating its appropriateness in certain philosophic circles) – is controversial in the philosophical literature. Therefore, if one subscribes to the school of methodological individualism, in contrast to metaphysical holism which I have chosen to follow, one may argue that the philosophical theory of action is not appropriate for studying competitive actions, because the notion of collective agency is nonsensical, and therefore the philosophical theory of action cannot be applied for studying competitive action (or any other collective action for that matter). Furthermore, I should note that the notion of intentionality (and essentially the criteria for determining the intentionality of a given action) is not unambiguous in the philosophical literature. Instead, there are numerous different accounts on intentionality which differ from each other to some degree (see, e.g. Adams, 1986; Bratman, 1984, 1987; McCann, 1986; Mele and Moser, 1994; Searle, 1987). Therefore, it could be possible, depending on which view on intentionality one subscribes to, to argue that the view put forth by Mele and Moser (1994), upon which I decided to build in

this study, is not appropriate because other (perhaps even more feasible) alternatives are available. And furthermore, since this is to my best knowledge the first time that the philosophical theory of action has been applied in the context of competitive dynamics, it may be possible to criticize the approach altogether despite my best attempts to carefully argue the justification for doing so.

All these criticisms are possible and can be supported by prior literature if necessary because, as noted above, the philosophical theory of action is not yet mature and therefore contains numerous aspects which are controversial in that literature. However, I feel that the selection has been a productive one, and furthermore can be similarly defended by referring to prior literature.

However, the definition developed in the conceptual part of the study no doubt spells some trouble for subsequent research on competitive dynamics, and therefore may be subject to criticism. First, the definition makes reference to the beliefs of a company, and furthermore the criteria of intentionality mention the action plan of a company, both of which are difficult, if not utterly impossible, to observe. Thus, it may be argued that the definition is too vague, because it includes something that may not be observable and, therefore, the definition is not appropriate (at least in an empirical sense). However, following Godfrey and Hill (1995), this criticism may be countered by arguing that the 'problem of unobservables' should not hinder theoretical development. However, with regard to empirical research, this criticism carries some substance. In a similar vein, the definition for competitive action put forward in this study calls for relaxing the requirement of detectability of competitive actions. This is also troublesome in an empirical sense: it is certainly challenging to study something which may not be detected, and therefore it may be argued from empirical grounds that the current definition is inherently too broad. However, in this case, again, the definition can be defended by following Chen (1996), who, in essence, posits that competitive actions which go undetected may be the most powerful of them all. But, again, from the perspective of empirical research, such criticism is understandable and even expected.

Then, the same discussion about the appropriateness of the selection concerning the theoretical premises applies to the typological part of the study as well. While the same criticism for the philosophical theory of action applies in the typological development as in the conceptual development just discussed, the other theoretical premise, the general theory of competition, may be criticized, too. Namely, even if the general theory of competition was argued, compared to the other selected theories of competition, to be the most appropriate one, it may be still possible to argue that the theory in question is still a relatively recent one – being originally introduced in 1995 (Hunt and Morgan, 1995). Moreover, this theory of competition has not gained a similar momentum than all the other reviewed alternatives: the theory has mainly been promoted by its original developer, Shelby Hunt, and his colleagues. Thus, it may be justifiable to argue that this theory has not yet earned a position of being a widely accepted and used theoretical perspective, and therefore such a theory may not be mature enough to be selected as *the* theory of competition with regard to competitive dynamics.

In addition, it can be that a theory of competition in some totally different body of knowledge could be substantially more thoroughly developed than any such theory in economics or organization science. The most obvious candidate in this respect would undoubtedly be the theory of competition in biology, which, like the general theory of competition (i.e. the resource-advantage theory of competition), focuses essentially on competition over resources. Moreover, the biological theory of competition has substantially motivated organizational ecology (which, in turn, has proven to be a time-enduring theoretical perspective). However, as organizational ecology has demonstrated, the biological theory may not allow such freedom for companies (analogously with individual animals) to exercise judgment and competitive maneuvering that competitive dynamics would require, and therefore this path would have required substantial contextual interpretation or modification. But, nonetheless, this might have been an interesting – albeit challenging – alternative which was selected against in this study.

And finally, since the study puts forward a typology of competitive actions (instead of a taxonomy of those), the study is admittedly somewhat disconnected from the real world since typological approaches in general are not particularly interested in the real-world instances of research subjects. Therefore, it may be argued that it would have been at least equally productive to choose a taxonomic approach by studying what competitive actions companies actually use when they compete. Moreover, such argument gains in weight if one proceeds to note that in biology – in which the classificatory system of living organisms is the "paramount achievement" of that scientific body of knowledge (Sanchez, 1993: 73) – the classificatory approach is, indeed, taxonomical. While all this is true, the taxonomic approach for classifying competitive actions also has its drawbacks, one of which is the need of interpretation, because observing the properties of competitive actions (as they appear in the business news, for instance) is most likely substantially more ambiguous than observing the physical characteristics of plants and animals. Nonetheless, a taxonomic approach, if executed carefully, could yield a classificatory system which is more realistic, in that it would focus on observable real-world instances of competitive actions instead of specifying theoretical types of those.

8.3 Implications for future research

This study has several implications for future research. First, from a conceptual point of view, since this study discards the requirement of detectability of competitive actions and, furthermore, emphasizes that internal actions, in addition to external actions, are an important variety of competitive actions, it would be interesting for future studies to investigate the usage of such competitive actions in comparison to more 'traditional' competitive actions (i.e. detectable, externally directed actions). Indeed, it would be particularly interesting to see the relative proportion of such competitive actions which go unnoticed by *any* party external to the company performing the actions, but which, nonetheless, are competitive actions in that they conform to the definition put forward in this study. This approach, however, would obviously require the research to be conducted inside a focal company, because undetected actions, by definition, can not be detected by an observer *external* to the focal company. Moreover, if it became possible to

observe such actions (again, inside a focal company), it would be particularly interesting to investigate what distinguishes such competitive actions from actions that are detected by external observers. This, in turn, would have significant managerial implications in delineating how to prepare and perform a competitive action which is intended to remain unnoticed.

This line of research could also be able to address the notion of media bias which I hypothesized to exist in the traditional data sources (i.e. business news) utilized in competitive dynamics research. Indeed, if it is possible to observe competitive actions which do *not* get reported, it would be possible to compare such competitive actions to those actions that do get reported. Thus, it would be possible to investigate what determines whether a competitive action becomes reported in the media or not (i.e. what properties of competitive actions are associated with a high probability of being reported). Moreover, such a line of research could also be able to determine the magnitude of such a bias with regard to different types of sources and would thereby help future empirical studies in competitive dynamics in terms of source selection.

As to the typological part of the present study, it would be obviously interesting to see how well the proposed typology fares (i.e. how applicable it is) in different empirical research settings. Furthermore, should there be other similar typological approaches concerning the (theoretical) variety of competitive actions, it would, of course, be particularly interesting to have such typologies compared against the one put forward in this study, both theoretically and empirically. After all, there may be several feasible selections of theoretical premises for constructing a typology of competitive actions, all of which result in a different typology.

In a similar vein, it would be interesting to have the proposed typology compared with a rigorously developed *taxonomy* of competitive actions (although it is a completely different question as to what is taxonomic rigor) in order to see how the categories in these two classificatory systems map onto each other. Such a study could also more productively assess the relative merits of these two opposing classificatory approaches with regard to the research on competitive dynamics.

Furthermore, with regard to the notion of forbearing, one immediate possibility for further research (assuming that one accepts the notion of forbearance as discussed in this study) is to investigate whether the related notion of 'forbearance inertia' (or 'inaction inertia', see, e.g. Orit et al., 2004; Zeelenberg and van Putten, 2005) comes into play in competitive interaction in the way it has been documented in other behavioral research.

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APPENDICES

Appendix 1: Catalogues of Competitive Actions by Prior Studies in the Context of the U.S. Domestic Airline Industry

Smith et al. (1991):

1. New product offerings
2. Mergers
3. New hub creations
4. Price cuts
5. New promotional actions
6. Joint advertising efforts

+ 10 unspecified types

Chen et al. (1992):

1. Merger and acquisition
2. Price changes
3. Promotion
4. Expansion into a new market
5. Service improvement

+ 11 unspecified types

Chen and MacMillan (1992):

1. Price cut
2. Promotion
3. Service improvement
4. Increase in commission rate for travel agents
5. Feeder alliance with a commuter airline
6. Merger and acquisition
7. Copromotion with nonairlines
8. Increase in daily departures
9. Exit from a route
10. Entry into a route
11. Decrease in daily departure
12. Cooperation with another airline
13. Hub creation

Miller and Chen (1994):

1. Price cut
2. Price increase
3. New promotion
4. Promotion with nonairlines
5. Service improvement
6. New service
7. Commission rate change for agents
8. Daily departures increase
9. Daily departures decrease
10. Route exit
11. Route entry
12. Entry price cut
13. Special fare advertisement
14. Ticket purchase requirement
15. Frequent flyer program
16. Fare structure
17. Acquisition of new plane
18. Hub creation
19. Feeder alliance
20. Cooperation with nonairline
21. Intraindustry merger and acquisition

Chen and Miller (1994):

1. Price cut
2. Promotion
3. Service improvement
4. Increase in commission rate for travel agents
5. Feeder alliance with a commuter airline
6. Merger and acquisition
7. Co-promotion with non-airlines
8. Increase in daily departures
9. Entry into a new route
10. Decrease in daily departures
11. New service
12. Cooperation with another airline
13. Frequent Flyer Programs
14. Hub creation and major expansion

Chen and Hambrick (1995):

1. Price cut
2. Promotion
3. Service improvement
4. New service
5. Increase in commission rate for travel agents
6. Feeder alliance with a commuter airline
7. Cooperation with another major airline
8. Merger and acquisition
9. Co-promotion with non-airlines
10. Increase in daily departures
11. Exit from a route
12. Change in ticket purchase requirements
13. Entry into a new route
14. Frequent flier programs
15. Change in fare structure
16. Decrease in daily departures
17. Hub creation

Chen et al. (2002):

1. Price cut
2. Promotion
3. Service improvement
4. Introduction of new service
5. Promotion with travel agents
6. Feeder alliance with a commuter airline
7. Cooperation with other airlines
8. Merger and acquisition
9. Co-promotion with non-airlines
10. Increase in daily departures
11. Exit from a route
12. Entry into a new route
13. Frequent flyer promotion
14. Hub creation

Appendix 2: Catalogues Of Competitive Actions By Prior Studies In Contexts Other Than The U.S. Domestic Airline Industry

Oliva et al. (1988):

1. Product differentiation
2. Product quality improvements
3. New product introductions
4. Manufacturing efficiency
5. Concentrated advertising campaigns

Young et al. (1996):

1. Product introductions
2. Product announcements
3. Marketing/promotion campaigns

Ferrier et al. (1999):

1. Major new pricing actions
2. New marketing and promotional actions
3. New products
4. New capacity additions
5. New legal actions
6. New signalling actions

Ferrier (2001), Ferrier and Lee (2002):

1. Pricing actions
2. Marketing actions
3. New product actions
4. Capacity-related actions
5. Service actions
6. Overt signalling actions

Ferrier et al. (2002), Lyon and Ferrier (2002), Ferrier and Lyon (2004):

1. Pricing actions
2. Marketing actions
3. Product actions
4. Capacity actions
5. Service actions
6. Signaling actions

Hopkins (2003):

1. Outsourcing (of products of components)
2. Marketing (increasing marketing, changing market message or advertising)
3. Manufacturing (redesigning or moving manufacturing plants)
4. Joint venture
5. Organizational restructuring (downsizing or downscoping)
6. Geographic expansions
7. Price reduction
8. Offshore manufacturing
9. New technology (utilizing new product or manufacturing technology)
10. New product/features
11. New distribution method (changing how the products are wholesaled or traded)
12. Government/legal (lobbying the government for legislative changes)

Boyd and Bresser (2004a, 2004b):

1. Pricing
2. Marketing
3. Service
4. Geographic growth
5. Mergers and acquisitions
6. Legal actions
7. Retail outlet range
8. Retail outlet format
9. Internet-based actions

Offstein and Gnyawali (2005a, 2005b):

Marketing

Price

1. Price increase – Raising the price for one or more products
2. Change in pricing structure – Modifying the overall pricing structure (e.g. increasing or decreasing bulk discount percentage or changing dealer commissions)
3. Entry (temporary) price cut – A price reduction that is clearly associated with a firm's entry into a new market

Advertising/promotion

4. Change in advertising/promotion approach – For example, direct to consumer (DTC), office promotion, providing samples to health care providers, journal advertisement, E-commerce, hospital promotion
5. Achievement of major endorsements – Applying and gaining the endorsement of the firm's product by a major organization (e.g., an HMO or physicians' organization) or a famous person (e.g., professional athlete)[250]

[250] HMO here stands for Health Maintenance Organization

Product/service: A specific move focused on a particular product of service (including after sale service) *within* a product/market segment in which the firm is already active

6. Launching of new product/service – Introducing a new product or service in a product/market segment including a geographic region in which the firm is already active
7. Withdrawal of product/service – Withdrawing a product or service while remaining in a product/market segment
8. Product/service improvement – Adding features or specifically improving the quality of an existing product or service (e.g., changing the state of drug from pill to suspended form, repackaging the drug, and slight modifications such as the time-delayed release of the drug)
9. Changing classification of product – Declassifying a drug from prescriptive to over-the-counter (OTC) status, or vice versa

Distribution

10. Creation of new distribution channel – Opening of a distribution line that was previously non-existent

Production/operations

Production volume: A specific volume-related move as follows (not an increase or decrease in installed capacity

11. Production decrease – Decreasing the actual volume of production of a drug

Production capacity: A specific-capacity related move as follows (not a temporary increase or decrease in actual production)

12. Capacity increase – Increasing the installed production capacity

Production units

13. Opening new production unit – Opening of new production facility

Production improvement

14. Operational efficiency enhancement – Actions such as re-engineering, total quality management, business process improvement, and enterprise resource planning that are aimed at enhancing operational drug making efficiency. This action does not involve the implementation of technology; rather it involves the alteration of processes.

Technology/R&D

Technology

15. Acquiring new technology for drug discovery – Acquiring and installing any new technology useful in the drug discovery process
16. Acquiring new technology for drug manufacturing – Acquiring and installing any new technology aimed primarily at improving the manufacturing or production process
17. Developing new technology for drug discovery – The in-house development of technology that aims to improve the firm's ability to discover new drugs
18. Developing new technology for drug manufacturing – The in-house development of technology that aims to improve the drug manufacturing/production process

19. Acquiring intellectual property rights – Acquiring the rights to intellectual property developed outside the firm (e.g., licenses, copyrights, patents, and trademarks)
20. Performing in-house scientific trials – Conducting or announcing the completion of scientific research within the firm on a product that is currently in use (e.g., a firm conducts its own internal trial); these trials are discretionary and are not to be confused with FDA mandated clinical trials

R&D process

21. FDA filing – The filing of a new drug with the FDA
22. Discovery of a new molecule – A significant scientific discovery in which the firm discovers a new molecule
23. Conducting clinical tests – Performing clinical tests that are mandated by the FDA to achieve FDA approval
24. Discovering new application of existing drug – An action in which a firm determines that an existing drug addresses a distinctly separate condition or population subgroup (e.g., drug previously thought to lower cholesterol also lowers blood pressure, drug previously used for men is found useful for women)
25. Patent filing – The necessary actions that a firm takes to file a patent with the United States Patent and Trademark office

R&D Investment

26. Increase in R&D investment – An increase in the amount of resources devoted to R&D (can include financial, capital and human forms of investment)

Management/human resources

27. Major recruiting/selection initiative – Specific hiring practices aimed at improving the competitiveness of the firm (e.g., hiring 3000 representatives for launching of a new drug)
28. Major training/development initiatives – HR practice aimed at improving the work force (may address soft skills such as diversity training as well as hard skills such as product education)

Aspects of value chain not captured elsewhere

29. After sales service – Actions associated with providing service to enhance or maintain the value of the product (e.g., training physicians on the side effects of the product or teaching nurses how to properly administer the product)
30. Procurement – Actions associated with purchasing of inputs (e.g., qualifying new suppliers, monitoring of supplier performance, machinery, and equipment) or of general materials (e.g., computers)

Corporate

Specific product/market segment: A move focused on a specific product/market segment (e.g., anti-depressants versus antibiotics)

31. E-commerce initiative – Utilizing the internet or web into business operations (e.g., business to business E-commerce interaction)

32. Exit from product/market – Withdrawing from a product/market segment in which the firm was previously a participant

Alliance: A specific move focused on creating or dissolving an alliance (cooperative agreements regarding technical training programs, long-term supply relationships, marketing/service agreements, non-equity cooperative arrangements, joint ventures in existing units, or Greenfield joint ventures

33. Customer alliance – The creation or dissolution of an alliance with a downstream partner (e.g., hospitals, insurance companies, HMOs, or pharmacies)
34. Competitor alliance – The creation or dissolution of an alliance with a horizontal partner
35. Supplier alliance – The creation or dissolution of an alliance with an upstream partner

Vertical integration: A specific move related to the firm's extent of vertical integration as follows:

36. Increase in vertical integration – The acquisition or creation of an owned unit or joint venture (upstream or downstream) that increases the firm's extent of vertical integration (e.g., firm purchase of pharmacies)

Intra-industry acquisition

37. Increase in horizontal integration – Acquisition of any drug company, drug manufacturing facility, drug testing company, or R&D unit
38. Divestment of other assets – Sale or closure of non-drug business units (e.g., real estate or property divestment)

Organizational restructuring

39. Structural changes – Organizational structure-based actions such as elimination of divisions, departments, hierarchies that are focused on achieving organizational efficiency
40. Downsizing/layoffs – Actions focused on reducing the number of employees

Legal and lobbying actions

41. Political/bureaucratic lobbying – Actions taken to influence governments and related stakeholders to favour of the firm or the drug industry. This entails communication directed towards a regulatory government agency in an effort to influence bureaucratic decision-making (e.g., FDA).
42. Lawsuits against competitors – Legal actions taken against another drug firm
43. Filing of patent infringements – A regulatory or legal action undertaken by a competitor to prevent other companies from capitalizing on an existing patent

Gaining approvals from regulatory agencies and major stakeholders

44. Securing FDA approval – Gaining favourable FDA approval to manufacture a drug for public use
45. Securing patent approvals – Earning patent rights by the United States Patent and Trademark office

46. Securing other regulatory approvals – Any other regulatory approval, other than FDA approval, such as approvals from the Federal Trade Commission, international regulatory agencies, regulatory bodies from other countries (e.g., the European Union or World Health Organization)

Appendix 3: Irreversibility dimensions of competitive actions

Chen and MacMillan (1992)

- Amount of financial investment required for implementation
- Amount of management effort required for implementation
- Degree of disruption of staff, systems and/or procedures caused by implementation
- Degree of bureaucratic and regulatory commitment once the move [action] is implemented
- The likely resistance from employees and/or unions to reversing the move [action]
- Degree of support from external parties, e.g. investment banks and regulatory agencies, required for execution
- Likelihood that the move [action] will be publicly announced by top management
- Amount of industry publicity the move [action] would receive
- Degree to which the move [action] creates obligations to major stakeholders
- Financial cost of reversing the move [action]
- Extent to which relocation of staff and/or equipment would be required
- Likelihood that top management approval would be required
- Degree of interdepartmental coordination required for implementation
- Degree to which facilities other than aircraft[251] used for this move could not be deployed for other purposes should the move [action] be reversed

[251] Chen and MacMillan studied the use of competitive actions in the context of U.S. airline industry.

Chen et al. (2002)

Internal commitment

- Extent to which relocation of staff and/or equipment would be required
- The likely resistance from employees and/or unions to reversing the move [action]
- Degree to which facilities other than aircraft[252] used for this move [action] could not be deployed for other purposes should the move [action] be reversed
- Degree of disruption of staff, systems and/or procedures caused by implementation
- Degree of inter-departmental coordination required for implementation
- Financial cost of reversing the move [action] once it is taken

Public commitment

- Amount of industry publicity action would receive
- Likelihood that the move [action] would be publicly announced by top management
- Likelihood that top management approval would be required
- Degree to which the move [action] creates obligations to major stakeholders (e.g. suppliers and travel agents[253])

[252] Chen, Venkataraman, Black and MacMillan studied the use of competitive actions in the context of U.S. airline industry.

[253] As above.

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